

EAT•N

Vickers

Standard Power Units

Start-Up and Maintenance

System-Pak II

System Pak-Plus

Profile-Pak

System-Center

System-Overhead

System-L



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General Information

This manual outlines installation, operation, and troubleshooting practices for the Vickers standard power unit series.

System-Pak II, PSSP
System Pak-Plus, PSPP
Profile-Pak, PSLP
System-Center, PSSC
System-Overhead PSSO
System-L, PSSL

General Safety Information



WARNING:

Read General Safety Information carefully before attempting to assemble, install, operate, or maintain these products. Failure to comply with these instructions may result in personal injury and/or property damage. Retain these instructions for future reference.

1. Make all electrical connections in accordance with the National Electrical Code (NEC) and Occupational Safety and Health Act (OSHA) regarding branch circuit protection and means of motor disconnection to avoid electric shock and fire hazards.

2. Avoid the potential for oil spills and slippery floor conditions by:

- Maintaining oil reservoir on a level surface
- Maintaining leak-free hydraulic hose or pipe connections to the unit
- Not overfilling the unit with hydraulic fluid.

3. Exceeding the recommended operating temperatures may cause system components to become too hot to handle. Overheated components create a potential for burns, leaks, and premature component failure.

4. Ensure that the relief valve setting does not exceed the pressure rating of the unit or of the lowest rated component connected to the power unit. The system pressure setting should be within the horsepower specifications of the unit's electric motor. Use the formula

$$HP = PSI * GPM * 0.00073$$

for a general guideline. Refer to tables on Page 9 for specific operation limitations.

5. Ensure all pressure is released from the system before attempting to remove or repair any valve, pump, or component of the system. Failure to follow this procedure may result in the release of pressurized hydraulic fluid that has the potential to cause severe personal injury.

6. Ensure that all electrical power is disconnected at the junction box before attempting removal or repair of any electric motor starter, valves, or pumps, or other components in the system.

Power Unit Installation and Start-Up Information

Unpacking & Setup

1. Unpacking: All power units are tested and inspected before shipment. Any damage or shortages evident when the equipment is received should be reported immediately reported to the commercial carrier that transported the equipment. Assistance is available from your Eaton representative, if required. Always refer to the purchase order number and Eaton model and serial numbers when contacting Eaton.
2. Select a clean and well-ventilated area to install the power unit. Level the power unit before bolting the reservoir to the floor. Mounting hole dimensions can be found in the installation drawings in the appendix.
3. Fill the reservoir through the filler-breather with a high-quality hydraulic oil:
 - For ambient temperature -18°C to 70°C (0° to 160°F), use SAE 10 grade oil,
 - For ambient temperature 0°C to 90°C (32° to 200°F), use SAE 20 grade oil.

New hydraulic oil is often highly contaminated. Assure the oil is filtered through a high efficiency filter when filling.
4. Fill oil to the top of the full mark on fluid level gauge on the reservoir. Do not overfill.
5. Fill the case of external horizontally mounted piston pumps. Open pump inlet valves, if installed.
6. Connect the powerunit's hydraulic pressure supply and return connections using proper line sizing and cleanliness practices. Connect all other model auxiliary functions per manufacturer's data sheets included with power unit information packet, i.e. temperature switches, pressure switches, water coolers etc.
7. Check the motor nameplate and motor starter identification tag, if your unit is so equipped, for proper voltage requirements. Connect the power unit to a proper electrical source. Jog the motor to check rotation. Rotation must match the direction of the arrow decal(s) affixed to the unit, or the pump may be damaged. Polyphase motors are bi-directional, and proper rotation can be established by reversing any two power leads.
8. System pressures should be set as low as possible to prevent unnecessary fluid heating. On some applications, this setting may be from 3,5 to 14 bar (50 to 200 psi) above necessary static pressures to overcome dynamic pressure drop or to achieve proper acceleration.
9. Pump noise and "crackle" are most often caused by air entering the pump suction inlet. Tightening the suction fittings will usually eliminate such problems. If the pump fails to the prime, vent the pump discharge to atmosphere to establish fluid flow. Continue to jog the electric motor to initially prime the pump and lines. Completion of the jog mode will be achieved when the pressure gauge indicates a positive pressure. The power unit is now ready for operation.
10. The fluid level should be rechecked and maintained so it always registers in the sight gauge.
11. The first few hours of operation are critical to the life of the system. The system should be run at minimum pressure and maximum flow for a minimum of two hours to remove contamination introduced during installation. After the first few hours of operation, any foreign material from the system will be flushed to the return filter. It is good practice to replace filter elements to maintain fluid cleanliness. Fluid temperature should be monitored to achieve stability below 54°C (130°F) range during the initial start-up and commissioning period.
12. For most industrial applications, an operating temperature of 66°C (150°F) is considered maximum. At higher temperatures, reliable and consistent hydraulic control is reduced, component service life is compromised, hydraulic fluid deteriorates and a potential danger to operation personnel is created. Note: At least once a year or every 4,000 operating hours, the air vent filter should be replaced and the entire system checked for possible future difficulties. A fluid sample should be taken and analyzed for particle contamination and chemical composition. Vickers Fluid Analysis part number 894277 is recommended. Some applications or environmental conditions may dictate such maintenance be performed at more frequent intervals. See the Maintenance Section of this brochure for more details.

Power Unit Installation and Start-Up Information



OPERATION WARNING:

Read General Safety Information section on Page 3 prior to starting any maintenance procedures.

CAUTION

Never run unit without oil.

1. At initial startup, start and stop the motor several times to allow the pump to prime before full flow begins.
2. Bleed all air from the hydraulic system to prevent erratic operation of the pump.
3. Re-check reservoir oil level after a few complete cycles of the hydraulic system and refill, if necessary.

Adjusting Relief Valve/Compensator Setting

The relief valve and/or compensator on this unit is factory set at 0 - 25 bar (0-350 psi), unless otherwise specified at time of order. Use the formula

$$HP = PSI * GPM * 0.00073$$

for a general guideline before adjusting the relief valve or compensator to ensure you are within the operating limits of the electric motor being used. Refer to the tables on Page for specific operation limitations. Set the relief valve at least 9 bar (120 psi) higher than the compensator if this unit has a pressure compensated pump (see note below). It is recommended that the compensator (or relief valve in the case of a non-compensated pump) be approximately 7 bar (100 psi) higher than the operating pressure required. To adjust the setting, refer to the following steps:

1. Turn unit on.
2. Block supply port or extend cylinder to full stroke so oil is going over the relief valve for fixed volume pumps or compensation is reached for variable piston pumps. Note the pressure settings shown on Pages 6-8 for the maximum suggested pressure value.
3. Check system pressure gauge.

4. Loosen lock nut on relief valve or compensator adjustment valve.

5. Turn the adjustment screw:

- Clockwise (CW) to increase pressure setting.
- Counterclockwise (CCW) to decrease pressure setting.

6. When the desired pressure is reached on the pressure gauge, tighten lock nut.

- Note: To set the relief valve on a unit that has a pressure compensator: Close the compensator CW all the way before adjusting the relief. Set the relief to no more than 16 bar (220 psi) above the maximum recommended operating pressure. Open the compensator CCW to the lower of 9 bar (120 psi) below the relief setting, or 7 bar (100psi) above the desired operating pressure.

General Operating Specifications

- Maintain fluid cleanliness at an ISO code of 18/16/14 or better. Use original equipment replacement filter elements
- Filtration return line 18/16/14 or better
- Operating temperature 66° C (150° F) maximum
- Fluid viscosity 70-250 SUS (13-54 cSt)
- Inlet pressure 5 In. Hg. vacuum – atmospheric
- When looking at the fan end of the motor or shaft end of the pump, the typical motor rotation is clockwise.

System Pressure Limitations

(by pump model
and motor horsepower)

1500 RPM

$$\text{psi} = \frac{\text{hp} \times 1714 \times 80\%}{\text{gpm}}$$

$$\text{hp} = \frac{\text{gpm} \times \text{psi}}{1714 \times 80\%}$$

PUMP	MODEL CODE	PUMP TYPE	MOUNT	MAX FLOW@ 1500 RPM	MAX PRESSURE BAR (PSI)	3/4 HP BAR (PSI)	1-1/2 HP BAR (PSI)	3 HP BAR (PSI)	5 HP BAR (PSI)	7 HP BAR (PSI)	10 HP BAR (PSI)	15HP BAR (PSI)
PISTON	P010	PVQ10	SAE A	4.0	206.9 (3,000)	17.7 (257)	35.4 (514)	70.9 (1,028)	118.2 (1,714)	177.3 (2,571)	206.9 (3,000)	206.9 (3,000)
	P013	PVQ13	SAE A	5.0	137.9 (2,000)	14.2 (206)	28.3 (411)	56.8 (823)	94.6 (1,371)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)
	P020	PVQ20	SAE B	8.0	206.9 (3,000)	8.9 (129)	17.7 (257)	35.4 (514)	59.1 (857)	88.7 (1,286)	118.2 (1,714)	177.3 (2,571)
	P032	PVQ32	SAE B	12.5	137.9 (2,000)	5.7 (82)	11.4 (165)	22.7 (329)	37.8 (548)	56.8 (823)	75.7 (1,097)	113.4 (1,645)
	P040	PVQ40	SAE B	16.0	206.9 (3,000)	4.4 (64)	8.9 (129)	17.7 (257)	29.6 (429)	44.3 (643)	59.1 (857)	88.7 (1,286)
	P045	PVQ45	SAE B	17.5	186.2 (2,700)	4.1 (59)	8.1 (118)	16.2 (235)	27.0 (392)	40.6 (588)	54.1 (784)	81.0 (1,175)
	P057	PVH57	SAE C	22.5	250.0 (3,625)	3.2 (46)	6.3 (91)	12.6 (183)	21.0 (305)	31.5 (457)	42.0 (609)	63.0 (914)
	P074	PVH74	SAE C	29.0	250.0 (3,625)	2.4 (35)	4.9 (71)	9.8 (142)	16.3 (236)	24.5 (355)	32.6 (473)	48.9 (709)
	P098	PVH98	SAE C	37.5	250.0 (3,625)	1.9 (27)	3.8 (55)	7.6 (110)	12.6 (183)	18.9 (274)	25.2 (366)	37.8 (548)
	P131	PVH131	SAE C	47.5	250.0 (3,625)	1.5 (22)	3.0 (43)	6.0 (87)	9.9 (144)	15.0 (217)	19.9 (289)	29.9 (433)
	M018	PVM018	SAE B	6.8	275.9 (4,000)	10.4 (151)	20.8 (302)	41.7 (605)	69.5 (1,008)	104.3 (1,512)	139.0 (2,016)	208.6 (3,025)
	M045	PVM045	SAE B	16.5	275.9 (4,000)	4.3 (62)	8.6 (125)	17.2 (249)	28.7 (416)	43.0 (623)	57.3 (831)	86.0 (1,247)
	M057	PVM057	SAE C	22.5	275.9 (4,000)	3.2 (46)	6.3 (91)	12.6 (183)	21.0 (305)	31.5 (457)	42.0 (609)	63.0 (914)
	M074	PVM074	SAE C	29.0	275.9 (4,000)	2.4 (35)	4.9 (71)	9.8 (142)	16.3 (236)	24.5 (355)	32.6 (473)	48.9 (709)
	M098	PVM098	SAE C	37.5	275.9 (4,000)	1.9 (27)	3.8 (55)	7.6 (110)	12.6 (183)	18.9 (274)	25.2 (366)	37.8 (548)
	M131	PVM131	SAE C	47.5	275.9 (4,000)	1.5 (22)	3.0 (43)	6.0 (87)	9.9 (144)	15.0 (217)	19.9 (289)	29.9 (433)
VANE	V003	V101S1S	SAE A	1.2	172.4 (2,500)	59.1 (857)	118.2 (1,714)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V007	V101S2S	SAE A	2.5	172.4 (2,500)	28.3 (411)	56.8 (823)	113.4 (1,645)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V010	V101S3S	SAE A	4.0	172.4 (2,500)	17.7 (257)	35.4 (514)	70.9 (1,028)	118.2 (1,714)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V013	V101S4S	SAE A	5.0	172.4 (2,500)	14.2 (206)	28.3 (411)	56.8 (823)	94.6 (1,371)	141.9 (2,057)	172.4 (2,500)	172.4 (2,500)
	V016	V101S5S	SAE A	6.2	172.4 (2,500)	11.4 (166)	22.9 (332)	45.7 (663)	76.3 (1,106)	114.4 (1,659)	152.6 (2,212)	172.4 (2,500)
	V020	V101S6S	SAE A	7.5	151.7 (2,200)	9.4 (137)	18.9 (274)	37.8 (548)	63.0 (914)	94.6 (1,371)	126.1 (1,828)	151.7 (2,200)
	V023	V101S7S	SAE A	8.5	131.0 (1,900)	8.3 (121)	16.7 (242)	33.4 (484)	55.7 (807)	83.4 (1,210)	111.2 (1,613)	131.0 (1,900)
	V028	20V8A	SAE B	10.5	206.9 (3,000)	6.8 (98)	13.5 (196)	27.0 (392)	45.0 (653)	67.5 (979)	90.1 (1,306)	135.1 (1,959)
	V031	20V9A	SAE B	11.5	206.9 (3,000)	6.1 (89)	12.3 (179)	24.7 (358)	41.1 (596)	61.7 (894)	82.2 (1,192)	123.4 (1,789)
	V037	20V11A	SAE B	14.0	206.9 (3,000)	5.0 (73)	10.1 (147)	20.3 (294)	33.8 (490)	50.7 (735)	67.5 (979)	101.3 (1,469)
	V040	20V12A	SAE B	15.5	158.6 (2,300)	4.6 (66)	9.2 (133)	18.3 (265)	30.5 (442)	45.7 (663)	61.0 (885)	91.5 (1,327)
	V043	25V14A	SAE B	16.5	172.4 (2,500)	4.3 (62)	8.6 (125)	17.2 (249)	28.7 (416)	43.0 (623)	57.3 (831)	86.0 (1,247)
	V055	25V17A	SAE B	21.5	172.4 (2,500)	3.3 (48)	6.6 (96)	13.2 (191)	22.0 (319)	33.0 (478)	44.0 (638)	66.0 (957)
	V067	25V21A	SAE B	26.0	172.4 (2,500)	2.8 (40)	5.4 (79)	10.9 (158)	18.2 (264)	27.3 (396)	36.3 (527)	54.6 (791)
	V081	35V25A	SAE C	31.0	172.4 (2,500)	2.3 (33)	4.6 (66)	9.2 (133)	15.2 (221)	22.9 (332)	30.5 (442)	45.7 (663)
	V097	35V30A	SAE C	37.5	172.4 (2,500)	1.9 (27)	3.8 (55)	7.6 (110)	12.6 (183)	18.9 (274)	25.2 (366)	37.8 (548)
	V112	35V35A	SAE C	44.0	172.4 (2,500)	1.6 (23)	3.2 (47)	6.4 (93)	10.8 (156)	16.1 (234)	21.5 (312)	32.2 (467)
	V121	35V38A	SAE C	47.5	172.4 (2,500)	1.5 (22)	3.0 (43)	6.0 (87)	9.9 (144)	15.0 (217)	19.9 (289)	29.9 (433)
GEAR	V138	45V42A	SAE C	54.0	172.4 (2,500)	1.3 (19)	2.6 (38)	5.2 (76)	8.8 (127)	13.1 (190)	17.5 (254)	26.3 (381)
	V162	45V50A	SAE C	64.0	172.4 (2,500)	1.1 (16)	2.2 (32)	4.4 (64)	7.4 (107)	11.1 (161)	14.8 (214)	22.1 (321)
	V193	45V60A	SAE C	76.0	172.4 (2,500)	1.0 (14)	1.9 (27)	3.7 (54)	6.2 (90)	9.3 (135)	12.4 (180)	18.7 (271)
	G005	26014-RZJ	SAE A	1.8	206.9 (3,000)	39.4 (571)	78.8 (1,143)	157.6 (2,285)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G007	26001-RZJ	SAE A	2.5	206.9 (3,000)	28.3 (411)	56.8 (823)	113.4 (1,645)	189.1 (2,742)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G010	26004-RZJ	SAE A	4.0	206.9 (3,000)	17.7 (257)	35.4 (514)	70.9 (1,028)	118.2 (1,714)	177.3 (2,571)	206.9 (3,000)	206.9 (3,000)
	G014	26005-RZJ	SAE A	5.5	206.9 (3,000)	12.9 (187)	25.8 (374)	51.6 (748)	86.0 (1,247)	129.0 (1,870)	171.9 (2,493)	206.9 (3,000)
	G017	26006-RZJ	SAE A	6.5	206.9 (3,000)	10.9 (158)	21.8 (316)	43.7 (633)	72.8 (1,055)	109.1 (1,582)	145.5 (2,110)	206.9 (3,000)
	G022	26008-RZJ	SAE A	9.0	158.6 (2,300)	7.9 (114)	15.8 (229)	31.5 (457)	52.6 (762)	78.8 (1,143)	105.1 (1,524)	157.6 (2,285)

Note: Max pressure ratings of SAE A mount pumps limited by input torque ratings of 517 in-lbs torque for 9 tooth spline shafts.

System Pressure Limitations

(by pump model
and motor horsepower)

1500 RPM

$$\text{psi} = \frac{\text{hp} \times 1714 \times 80\%}{\text{gpm}}$$

$$\text{hp} = \frac{\text{gpm} \times \text{psi}}{1714 \times 80\%}$$

PUMP	MODEL CODE	PUMP TYPE	MOUNT	MAX FLOW @ 1500 RPM	MAX PRESSURE BAR (PSI)	20 HP BAR (PSI)	30 HP BAR (PSI)	40 HP BAR (PSI)	50 HP BAR (PSI)	60 HP BAR (PSI)	75 HP BAR (PSI)	100 HP BAR (PSI)
PISTON	P010	PVQ10	SAE A	4.0	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	P013	PVQ13	SAE A	5.0	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)
	P020	PVQ20	SAE B	8.0	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	P032	PVQ32	SAE B	12.5	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)
	P040	PVQ40	SAE B	16.0	206.9 (3,000)	118.2 (1,714)	177.3 (2,571)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	P045	PVQ45	SAE B	17.5	186.2 (2,700)	108.1 (1,567)	162.1 (2,351)	186.2 (2,700)	186.2 (2,700)	186.2 (2,700)	186.2 (2,700)	186.2 (2,700)
	P057	PVH57	SAE C	22.5	250.0 (3,625)	84.1 (1,219)	126.1 (1,828)	168.1 (2,438)	210.1 (3,047)	250.0 (3,625)	250.0 (3,625)	250.0 (3,625)
	P074	PVH74	SAE C	29.0	250.0 (3,625)	65.4 (949)	97.8 (1,418)	130.4 (1,891)	163.0 (2,364)	195.7 (2,837)	244.6 (3,546)	250.0 (3,625)
	P098	PVH98	SAE C	37.5	250.0 (3,625)	50.4 (731)	75.7 (1,097)	100.9 (1,463)	126.1 (1,828)	151.3 (2,194)	189.1 (2,742)	250.0 (3,625)
	P131	PVH131	SAE C	47.5	250.0 (3,625)	39.8 (577)	59.7 (866)	79.7 (1,155)	99.5 (1,443)	119.4 (1,732)	149.3 (2,165)	199.1 (2,887)
	M018	PVM018	SAE B	6.8	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)
	M045	PVM045	SAE B	16.5	275.9 (4,000)	114.6 (1,662)	171.9 (2,493)	229.2 (3,324)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)
	M057	PVM057	SAE C	22.5	275.9 (4,000)	84.1 (1,219)	126.1 (1,828)	168.1 (2,438)	210.1 (3,047)	252.2 (3,657)	275.9 (4,000)	275.9 (4,000)
	M074	PVM074	SAE C	29.0	275.9 (4,000)	65.4 (949)	97.8 (1,418)	130.4 (1,891)	163.0 (2,364)	195.7 (2,837)	244.6 (3,546)	275.9 (4,000)
	M098	PVM098	SAE C	37.5	275.9 (4,000)	50.4 (731)	75.7 (1,097)	100.9 (1,463)	126.1 (1,828)	151.3 (2,194)	189.1 (2,742)	252.2 (3,657)
	M131	PVM131	SAE C	47.5	275.9 (4,000)	39.8 (577)	59.7 (866)	79.7 (1,155)	99.5 (1,443)	119.4 (1,732)	149.3 (2,165)	199.1 (2,887)
	V003	V101S1S	SAE A	1.2	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V007	V101S2S	SAE A	2.5	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
VANE	V010	V101S3S	SAE A	4.0	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V013	V101S4S	SAE A	5.0	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V016	V101S5S	SAE A	6.2	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V020	V101S6S	SAE A	7.5	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)
	V023	V101S7S	SAE A	8.5	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)
	V028	20V8A	SAE B	10.5	206.9 (3,000)	180.1 (2,612)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	V031	20V9A	SAE B	11.5	206.9 (3,000)	164.5 (2,385)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	V037	20V11A	SAE B	14.0	206.9 (3,000)	135.1 (1,959)	202.6 (2,938)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	V040	20V12A	SAE B	15.5	158.6 (2,300)	122.0 (1,769)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)
	V043	25V14A	SAE B	16.5	172.4 (2,500)	114.6 (1,662)	171.9 (2,493)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V055	25V17A	SAE B	21.5	172.4 (2,500)	88.0 (1,276)	131.9 (1,913)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V067	25V21A	SAE B	26.0	172.4 (2,500)	72.8 (1,055)	109.1 (1,582)	145.5 (2,110)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V081	35V25A	SAE C	31.0	172.4 (2,500)	61.0 (885)	91.5 (1,327)	122.0 (1,769)	152.6 (2,212)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V097	35V30A	SAE C	37.5	172.4 (2,500)	50.4 (731)	75.7 (1,097)	100.9 (1,463)	126.1 (1,828)	151.3 (2,194)	172.4 (2,500)	172.4 (2,500)
	V112	35V35A	SAE C	44.0	172.4 (2,500)	43.0 (623)	64.5 (935)	86.0 (1,247)	107.4 (1,558)	129.0 (1,870)	161.2 (2,337)	172.4 (2,500)
	V121	35V38A	SAE C	47.5	172.4 (2,500)	39.8 (577)	59.7 (866)	79.7 (1,155)	99.5 (1,443)	119.4 (1,732)	149.3 (2,165)	172.4 (2,500)
	V138	45V42A	SAE C	54.0	172.4 (2,500)	35.0 (508)	52.6 (762)	70.1 (1,016)	87.6 (1,270)	105.1 (1,524)	131.3 (1,904)	172.4 (2,500)
	V162	45V50A	SAE C	64.0	172.4 (2,500)	29.6 (429)	44.3 (643)	59.1 (857)	73.9 (1,071)	88.7 (1,286)	110.8 (1,607)	147.8 (2,143)
	V193	45V60A	SAE C	76.0	172.4 (2,500)	24.9 (361)	37.3 (541)	49.8 (722)	62.2 (902)	74.7 (1,083)	93.3 (1,353)	124.4 (1,804)
GEAR	G005	26014-RZJ	SAE A	1.8	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G007	26001-RZJ	SAE A	2.5	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G010	26004-RZJ	SAE A	4.0	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G014	26005-RZJ	SAE A	5.5	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G017	26006-RZJ	SAE A	6.5	206.9 (3,000)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	G022	26008-RZJ	SAE A	9.0	158.6 (2,300)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)

Note: Max pressure ratings of SAE A mount pumps limited by input torque ratings of 517 in-lbs torque for 9 tooth spline shafts.

System Pressure Limitations

(by pump model
and motor horsepower)

1800 RPM

$$\text{psi} = \frac{\text{hp} \times 1714 \times 80\%}{\text{gpm}}$$

$$\text{hp} = \frac{\text{gpm} \times \text{psi}}{1714 \times 80\%}$$

PUMP	MODEL CODE	PUMP TYPE	MOUNT	MAX FLOW@ 1800 RPM	MAX PRESSURE BAR (PSI)	3/4 HP BAR (PSI)	1-1/2 HP BAR (PSI)	3 HP BAR (PSI)	5 HP BAR (PSI)	7 HP BAR (PSI)	10 HP BAR (PSI)	15HP BAR (PSI)
PISTON	P010	PVQ10	SAE A	5.0	206.9 (3,000)	14.2 (206)	28.3 (411)	56.8 (823)	94.6 (1,371)	141.9 (2,057)	189.1 (2,742)	206.9 (3,000)
	P013	PVQ13	SAE A	6.0	137.9 (2,000)	11.8 (171)	23.7 (343)	47.3 (686)	78.8 (1,143)	118.2 (1,714)	137.9 (2,000)	137.9 (2,000)
	P020	PVQ20	SAE B	10.0	206.9 (3,000)	7.1 (103)	14.2 (206)	28.3 (411)	47.3 (686)	70.9 (1,028)	94.6 (1,371)	141.9 (2,057)
	P032	PVQ32	SAE B	15.0	137.9 (2,000)	4.8 (69)	9.4 (137)	18.9 (274)	31.5 (457)	47.3 (686)	63.0 (914)	94.6 (1,371)
	P040	PVQ40	SAE B	19.0	206.9 (3,000)	3.7 (54)	7.4 (108)	15.0 (217)	24.9 (361)	37.3 (541)	49.8 (722)	74.7 (1,083)
	P045	PVQ45	SAE B	21.0	186.2 (2,700)	3.4 (49)	6.8 (98)	13.5 (196)	22.5 (326)	33.8 (490)	45.0 (653)	67.5 (979)
	P057	PVH57	SAE C	27.0	250.0 (3,625)	2.6 (38)	5.2 (76)	10.5 (152)	17.5 (254)	26.3 (381)	35.0 (508)	52.6 (762)
	P074	PVH74	SAE C	35.0	250.0 (3,625)	2.0 (29)	4.1 (59)	8.1 (118)	13.5 (196)	20.3 (294)	27.0 (392)	40.6 (588)
	P098	PVH98	SAE C	45.0	250.0 (3,625)	1.6 (23)	3.2 (46)	6.3 (91)	10.5 (152)	15.8 (229)	21.0 (305)	31.5 (457)
	P131	PVH131	SAE C	57.0	250.0 (3,625)	1.2 (18)	2.5 (36)	5.0 (72)	8.3 (120)	12.4 (180)	16.6 (241)	24.9 (361)
	M018	PVM018	SAE B	8.2	275.9 (4,000)	8.6 (125)	17.3 (251)	34.6 (502)	57.7 (836)	86.5 (1,254)	115.3 (1,672)	173.0 (2,508)
	M045	PVM045	SAE B	20.0	275.9 (4,000)	3.5 (51)	7.1 (103)	14.2 (206)	23.7 (343)	35.4 (514)	47.3 (686)	70.9 (1,028)
	M057	PVM057	SAE C	27.0	275.9 (4,000)	2.6 (38)	5.2 (76)	10.5 (152)	17.5 (254)	26.3 (381)	35.0 (508)	52.6 (762)
	M074	PVM074	SAE C	35.0	275.9 (4,000)	2.0 (29)	4.1 (59)	8.1 (118)	13.5 (196)	20.3 (294)	27.0 (392)	40.6 (588)
	M098	PVM098	SAE C	45.0	275.9 (4,000)	1.6 (23)	3.2 (46)	6.3 (91)	10.5 (152)	15.8 (229)	21.0 (305)	31.5 (457)
VANE	M131	PVM131	SAE C	57.0	275.9 (4,000)	1.2 (18)	2.5 (36)	5.0 (72)	8.3 (120)	12.4 (180)	16.6 (241)	24.9 (361)
	V003	V101S1S	SAE A	1.5	172.4 (2,500)	47.3 (686)	94.6 (1,371)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V007	V101S2S	SAE A	3.0	172.4 (2,500)	23.7 (343)	47.3 (686)	94.6 (1,371)	157.6 (2,285)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V010	V101S3S	SAE A	4.5	172.4 (2,500)	15.8 (229)	31.5 (457)	63.0 (914)	105.1 (1,524)	157.6 (2,285)	172.4 (2,500)	172.4 (2,500)
	V013	V101S4S	SAE A	6.0	172.4 (2,500)	11.8 (171)	23.7 (343)	47.3 (686)	78.8 (1,143)	118.2 (1,714)	157.6 (2,285)	172.4 (2,500)
	V016	V101S5S	SAE A	7.5	172.4 (2,500)	9.4 (137)	18.9 (274)	37.8 (548)	63.0 (914)	94.6 (1,371)	126.1 (1,828)	172.4 (2,500)
	V020	V101S6S	SAE A	9.0	151.7 (2,200)	7.9 (114)	15.8 (229)	31.5 (457)	52.6 (762)	78.8 (1,143)	105.1 (1,524)	151.7 (2,200)
	V023	V101S7S	SAE A	10.5	131.0 (1,900)	6.8 (98)	13.5 (196)	27.0 (392)	45.0 (653)	67.5 (979)	90.1 (1,306)	131.0 (1,900)
	V028	20V8A	SAE B	12.5	206.9 (3,000)	5.7 (82)	11.4 (165)	22.7 (329)	37.8 (548)	56.8 (823)	75.7 (1,097)	113.4 (1,645)
	V031	20V9A	SAE B	14.0	206.9 (3,000)	5.0 (73)	10.1 (147)	20.3 (294)	33.8 (490)	50.7 (735)	67.5 (979)	101.3 (1,469)
	V037	20V11A	SAE B	17.0	206.9 (3,000)	4.1 (60)	8.3 (121)	16.7 (242)	27.8 (403)	41.7 (605)	55.7 (807)	83.4 (1,210)
	V040	20V12A	SAE B	18.5	158.6 (2,300)	3.9 (56)	7.7 (111)	15.3 (222)	25.6 (371)	38.3 (556)	51.1 (741)	76.7 (1,112)
	V043	25V14A	SAE B	20.0	172.4 (2,500)	3.5 (51)	7.1 (103)	14.2 (206)	23.7 (343)	35.4 (514)	47.3 (686)	70.9 (1,028)
	V055	25V17A	SAE B	26.0	172.4 (2,500)	2.8 (40)	5.4 (79)	10.9 (158)	18.2 (264)	27.3 (396)	36.3 (527)	54.6 (791)
	V067	25V21A	SAE B	31.5	172.4 (2,500)	2.3 (33)	4.5 (65)	9.0 (131)	15.0 (218)	22.5 (326)	30.0 (435)	45.0 (653)
GEAR	V081	35V25A	SAE C	37.5	172.4 (2,500)	1.9 (27)	3.8 (55)	7.6 (110)	12.6 (183)	18.9 (274)	25.2 (366)	37.8 (548)
	V097	35V30A	SAE C	45.0	172.4 (2,500)	1.6 (23)	3.2 (46)	6.3 (91)	10.5 (152)	15.8 (229)	21.0 (305)	31.5 (457)
	V112	35V35A	SAE C	52.5	172.4 (2,500)	1.4 (20)	2.7 (39)	5.4 (78)	9.0 (131)	13.5 (196)	18.0 (261)	27.0 (392)
	V121	35V38A	SAE C	57.0	172.4 (2,500)	1.2 (18)	2.5 (36)	5.0 (72)	8.3 (120)	12.4 (180)	16.6 (241)	24.9 (361)
	V138	45V42A	SAE C	65.0	172.4 (2,500)	1.1 (16)	2.2 (32)	4.3 (63)	7.2 (105)	10.9 (158)	14.6 (211)	21.8 (316)
	V162	45V50A	SAE C	77.0	172.4 (2,500)	0.9 (13)	1.9 (27)	3.7 (53)	6.1 (89)	9.2 (134)	12.3 (178)	18.4 (267)
	V193	45V60A	SAE C	91.0	172.4 (2,500)	0.8 (11)	1.6 (23)	3.1 (45)	5.2 (75)	7.8 (113)	10.4 (151)	15.6 (226)
	G005	26014-RZJ	SAE A	2.2	206.9 (3,000)	32.2 (467)	64.5 (935)	129.0 (1,870)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G007	26001-RZJ	SAE A	3.0	206.9 (3,000)	23.7 (343)	47.3 (686)	94.6 (1,371)	157.6 (2,285)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G010	26004-RZJ	SAE A	5.0	206.9 (3,000)	14.2 (206)	28.3 (411)	56.8 (823)	94.6 (1,371)	141.9 (2,057)	189.1 (2,742)	206.9 (3,000)
	G014	26005-RZJ	SAE A	6.5	206.9 (3,000)	10.9 (158)	21.8 (316)	43.7 (633)	72.8 (1,055)	109.1 (1,582)	145.5 (2,110)	206.9 (3,000)
	G017	26006-RZJ	SAE A	8.0	206.9 (3,000)	8.9 (129)	17.7 (257)	35.4 (514)	59.1 (857)	88.7 (1,286)	118.2 (1,714)	172.4 (2,500)
	G022	26008-RZJ	SAE A	10.5	158.6 (2,300)	6.8 (98)	13.5 (196)	27.0 (392)	45.0 (653)	67.5 (979)	90.1 (1,306)	131.0 (1,900)

Note: Max pressure ratings of SAE A mount pumps limited by input torque ratings of 517 in-lbs torque for 9 tooth spline shafts.

System Pressure Limitations

(by pump model
and motor horsepower)

1800 RPM

$$\text{psi} = \frac{\text{hp} \times 1714 \times 80\%}{\text{gpm}}$$

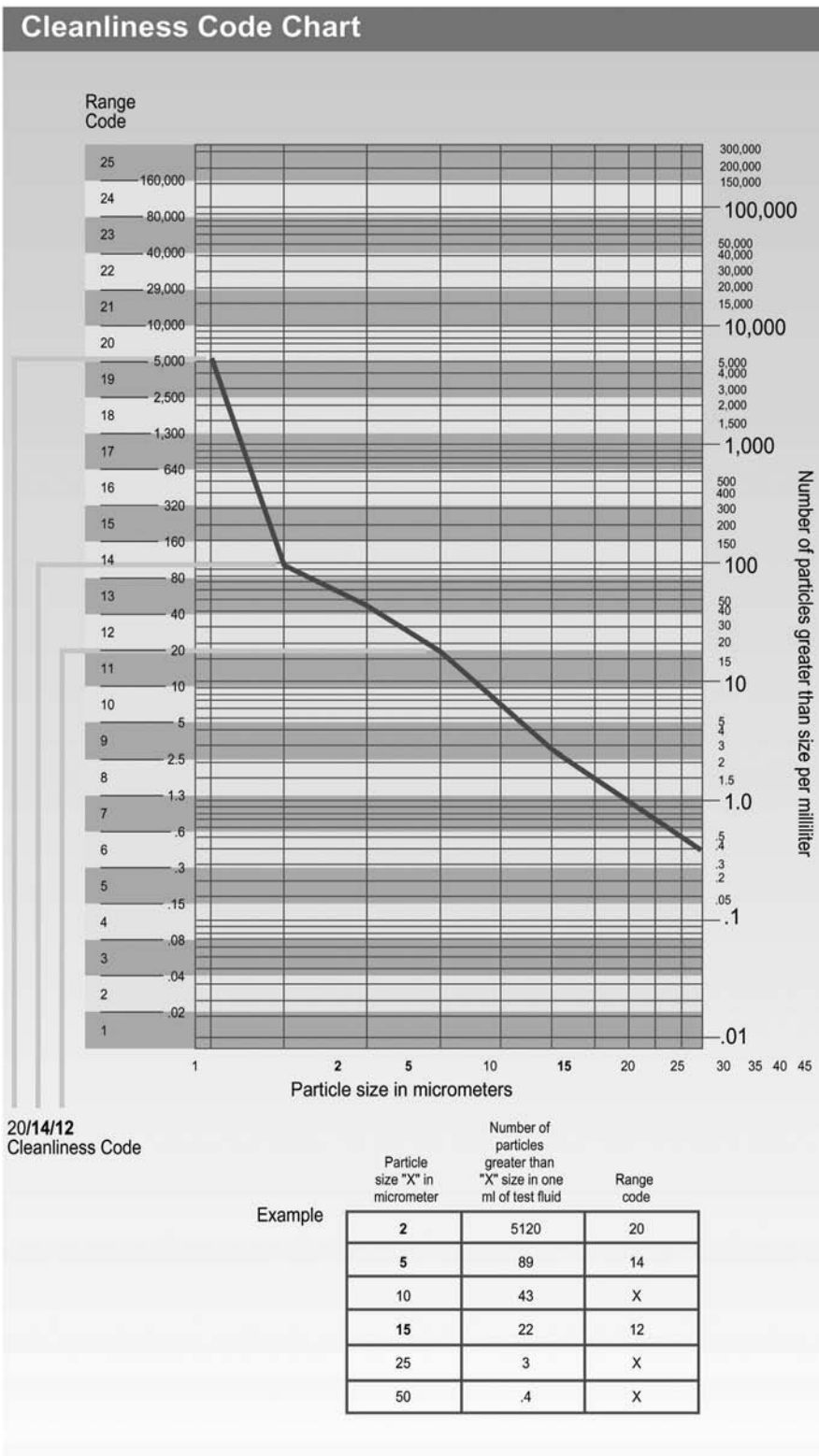
$$\text{hp} = \frac{\text{gpm} \times \text{psi}}{1714 \times 80\%}$$

PUMP	MODEL CODE	PUMP TYPE	MOUNT	MAX FLOW @ 1800 RPM	MAX PRESSURE BAR (PSI)	20 HP BAR (PSI)	30 HP BAR (PSI)	40 HP BAR (PSI)	50 HP BAR (PSI)	60 HP BAR (PSI)	75 HP BAR (PSI)	100 HP BAR (PSI)
PISTON	P010	PVQ10	SAE A	5.0	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	P013	PVQ13	SAE A	6.0	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)
	P020	PVQ20	SAE B	10.0	206.9 (3,000)	189.1 (2,742)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	P032	PVQ32	SAE B	15.0	137.9 (2,000)	126.1 (1,828)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)	137.9 (2,000)
	P040	PVQ40	SAE B	19.0	206.9 (3,000)	99.5 (1,443)	149.3 (2,165)	199.1 (2,887)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	P045	PVQ45	SAE B	21.0	186.2 (2,700)	90.1 (1,306)	135.1 (1,959)	180.1 (2,612)	186.2 (2,700)	186.2 (2,700)	186.2 (2,700)	186.2 (2,700)
	P057	PVH57	SAE C	27.0	250.0 (3,625)	70.1 (1,016)	105.1 (1,524)	140.1 (2,031)	175.1 (2,539)	210.1 (3,047)	250.0 (3,625)	250.0 (3,625)
	P074	PVH74	SAE C	35.0	250.0 (3,625)	54.1 (784)	81.0 (1,175)	108.1 (1,567)	135.1 (1,959)	162.1 (2,351)	202.6 (2,938)	250.0 (3,625)
	P098	PVH98	SAE C	45.0	250.0 (3,625)	42.0 (609)	63.0 (914)	84.1 (1,219)	105.1 (1,524)	126.1 (1,828)	157.6 (2,285)	210.1 (3,047)
	P131	PVH131	SAE C	57.0	250.0 (3,625)	33.2 (481)	49.8 (722)	66.3 (962)	83.0 (1,203)	99.5 (1,443)	124.4 (1,804)	165.9 (2,406)
	M018	PVM018	SAE B	8.2	275.9 (4,000)	230.6 (3,344)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)
	M045	PVM045	SAE B	20.0	275.9 (4,000)	94.6 (1,371)	141.9 (2,057)	189.1 (2,742)	236.4 (3,428)	275.9 (4,000)	275.9 (4,000)	275.9 (4,000)
	M057	PVM057	SAE C	27.0	275.9 (4,000)	70.1 (1,016)	105.1 (1,524)	140.1 (2,031)	175.1 (2,539)	210.1 (3,047)	262.7 (3,809)	275.9 (4,000)
	M074	PVM074	SAE C	35.0	275.9 (4,000)	54.1 (784)	81.0 (1,175)	108.1 (1,567)	135.1 (1,959)	162.1 (2,351)	202.6 (2,938)	270.2 (3,918)
	M098	PVM098	SAE C	45.0	275.9 (4,000)	42.0 (609)	63.0 (914)	84.1 (1,219)	105.1 (1,524)	126.1 (1,828)	157.6 (2,285)	210.1 (3,047)
	M131	PVM131	SAE C	57.0	275.9 (4,000)	33.2 (481)	49.8 (722)	66.3 (962)	83.0 (1,203)	99.5 (1,443)	124.4 (1,804)	165.9 (2,406)
	V003	V101S1S	SAE A	1.5	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V007	V101S2S	SAE A	3.0	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V010	V101S3S	SAE A	4.5	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
VANE	V013	V101S4S	SAE A	6.0	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V016	V101S5S	SAE A	7.5	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V020	V101S6S	SAE A	9.0	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)	151.7 (2,200)
	V023	V101S7S	SAE A	10.5	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)
	V028	20V8A	SAE B	12.5	206.9 (3,000)	151.3 (2,194)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	V031	20V9A	SAE B	14.0	206.9 (3,000)	135.1 (1,959)	202.6 (2,938)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	V037	20V11A	SAE B	17.0	206.9 (3,000)	111.2 (1,613)	166.9 (2,420)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	V040	20V12A	SAE B	18.5	158.6 (2,300)	102.2 (1,482)	153.4 (2,224)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)	158.6 (2,300)
	V043	25V14A	SAE B	20.0	172.4 (2,500)	94.6 (1,371)	141.9 (2,057)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V055	25V17A	SAE B	26.0	172.4 (2,500)	72.8 (1,055)	109.1 (1,582)	145.5 (2,110)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V067	25V21A	SAE B	31.5	172.4 (2,500)	60.1 (871)	90.1 (1,306)	120.1 (1,741)	150.1 (2,177)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	V081	35V25A	SAE C	37.5	172.4 (2,500)	50.4 (731)	75.7 (1,097)	100.9 (1,463)	126.1 (1,828)	151.3 (2,194)	172.4 (2,500)	172.4 (2,500)
	V097	35V30A	SAE C	45.0	172.4 (2,500)	42.0 (609)	63.0 (914)	84.1 (1,219)	105.1 (1,524)	126.1 (1,828)	157.6 (2,285)	172.4 (2,500)
	V112	35V35A	SAE C	52.5	172.4 (2,500)	36.0 (522)	54.1 (784)	72.1 (1,045)	90.1 (1,306)	108.1 (1,567)	135.1 (1,959)	172.4 (2,500)
	V121	35V38A	SAE C	57.0	172.4 (2,500)	33.2 (481)	49.8 (722)	66.3 (962)	83.0 (1,203)	99.5 (1,443)	124.4 (1,804)	165.9 (2,406)
	V138	45V42A	SAE C	65.0	172.4 (2,500)	29.1 (422)	43.7 (633)	58.2 (844)	72.8 (1,055)	87.3 (1,266)	109.1 (1,582)	145.5 (2,110)
	V162	45V50A	SAE C	77.0	172.4 (2,500)	24.6 (356)	36.8 (534)	49.1 (712)	61.4 (890)	73.7 (1,068)	92.1 (1,336)	122.8 (1,781)
	V193	45V60A	SAE C	91.0	172.4 (2,500)	20.8 (301)	31.2 (452)	41.6 (603)	51.9 (753)	62.3 (904)	77.9 (1,130)	103.9 (1,507)
GEAR	G005	26014-RZJ	SAE A	2.2	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G007	26001-RZJ	SAE A	3.0	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G010	26004-RZJ	SAE A	5.0	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G014	26005-RZJ	SAE A	6.5	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)	206.9 (3,000)
	G017	26006-RZJ	SAE A	8.0	206.9 (3,000)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)	172.4 (2,500)
	G022	26008-RZJ	SAE A	10.5	158.6 (2,300)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)	131.0 (1,900)

Note: Max pressure ratings of SAE A mount pumps limited by input torque ratings of 517 in-lbs torque for 9 tooth spline shafts.

Maintenance

- Motor bearings should be greased per the motor manufacturer's recommended procedure.
- Filters should be checked at least once a month and changed per indicators. Fluid condition should be checked at regular intervals, depending on environment and application conditions, to maintain optimum component life. Recommended cleanliness levels for systems operating 3000 psi or below and using petroleum oil under common conditions should meet an ISO code level of 18/16/14 or better. Fluids other than petroleum, severe service cycles, proportional or servo valve applications, or temperature extremes are cause for adjustment of this cleanliness code. See the Eaton Systematic Approach to Contamination Control (Document # 561) for exact details. Vickers Fluid Analysis Kit # 894277 or similar should be used to monitor the fluid life. Contact your Eaton Representative for more information on our Contamination Control Programs.
- Fluid reservoir should be filled to maintain fluid level between the high and low black lines on the sight-level gauge.
- At least once a year or every 4,000 operating hours, the air vent filter should be replaced and the entire system checked for possible future difficulties. Some applications or environmental conditions may dictate such maintenance should be performed at more frequent intervals.



Troubleshooting Guide

Excessive Noise

PROBLEM	CAUSE	REMEDY
Noisy Pump	Cavitation	Replace dirty filters.
		Wash strainers in solvent compatible with system fluid.
		Clean clogged inlet line.
		Clean reservoir breather vent.
		Change system fluid.
		Change to proper pump-drive motor speed.
		Overhaul or replace supercharge pump.
		Fluid may be too cold.
		Eliminate air in the fluid by any or all of the following:
		- Tighten leaky inlet connection.
Noisy Motor	Coupling misaligned	- Fill reservoir to proper level (with rare exception all return lines should be below fluid level in reservoir) .
		- Bleed air from system.
Noisy Relief Valve	Setting too low or too close to another valve	- Replace pump shaft seal (and shaft if worn at seal journal).
		Overhaul or replace.
		Align unit, if assembled with pump/motor adapter and couplings, and check condition of seals, bearings, and couplings.
Noisy Relief Valve	Worn poppet and seat	Install pressure gage and adjust to correct pressure.
		Overhaul or replace.

Troubleshooting Guide

Excessive Heat

PROBLEM	CAUSE	REMEDY
Pump Heated	Fluid heated	Install pressure gage and adjust to correct pressure (keep at least 9 bar (130 psi) difference between valve settings). Also, refer to Fluid Heated below.
	Cavitation	Replace dirty filter. Clean clogged inlet line. Clean reservoir breather vent. Change system fluid. Change to proper pump drive motor speed. Air in fluid Any or all of the following: - Tighten leaky connections. - Fill reservoir to proper level (with rare exception all return lines should be below fluid level in reservoir). - Bleed air from system. - Replace pump shaft seal (and shaft, if worn at seal journal).
	Relief or unloading valve set too high	Install pressure gage and adjust to correct pressure. (Keep at least 9 bar (130 psi) difference between valve setting).
	Excessive load	Align unit, if assembled with pump/motor adapter and couplings and check condition of seals and bearings. Locate and correct mechanical binding. Check for workload in excess of circuit design.
	Pump worn or damaged	Overhaul or replace.
	Motor Heated	Fluid heated Install pressure gage and adjust to correct pressure. (Keep at least 9 bar (130 psi) difference between valve setting).
	Relief valve or unloading valve set too high	Install pressure gage and adjust to correct pressure. (Keep at least 9 bar (130-psi) difference between valve setting).
Motor Heated	Excessive load	Align unit, if assembled with pump/motor adapter and couplings, and check condition of seals and bearings. Locate and correct mechanical binding. Check for workload in excess of circuit design.
	Motor worn or damaged	Overhaul or replace
	Relief Valve setting incorrect	Install pressure gage and adjust to correct pressure (keep at least 9 bar (130 psi) difference between valve settings).
	Worn or damaged relief valve	Overhaul or replace.
	Excessive Heat	Unloading valve set too high Install pressure gage and adjust to correct pressure (keep at least 9 bar (130-psi) difference between valve settings). Also refer to Fluid Heated below
	Fluid dirty or low supply	Change filters and system fluid if incorrect viscosity. Fill reservoir to proper level.
	Incorrect fluid viscosity	Change filters and system fluid if incorrect viscosity. Fill reservoir to proper level.
Excessive Heat	Faulty fluid cooling system	Clean cooler. Repair or replace cooler.
	Worn pump, valve, motor, cylinder, or other component	Overhaul or replace.
Fluid Heated	System pressure too high	Install pressure gage and adjust to correct pressure (keep at least 9 bar (130-psi) difference between valve settings).

Troubleshooting Guide

Incorrect Flow

PROBLEM	CAUSE	REMEDY
No Flow	Pump not receiving fluid	Replace dirty filters. Clean clogged inlet line. Clean reservoir breather vent. Fill reservoir to proper level. Overhaul or replace supercharge pump.
	Pump drive motor not operating	Overhaul or replace.
	Pump to drive coupling sheared	Check for damaged pump or pump drive. Replace and align coupling.
	Pump drive motor turning in wrong direction	Reverse rotation.
	Directional control set in wrong position	Check position of manually operated controls. Check electrical circuit on solenoid operated controls. Repair or replace pilot pressure pump.
	Entire flow passing over relief valve	Adjust.
	Damaged pump	Check for damaged pump or pump drive. Replace and align coupling
	Improperly assembled pump	Overhaul or replace.
Low Flow	Flow-control set too low	Adjust.
	Relief or unloading valve set too low	Adjust.
	Flow bypassing thru partially open valve	Overhaul or replace--or check position of manually operated controls. Check electrical circuit on solenoid operated controls. Repair or replace pilot pressure pump.
	External leak in system	Tighten leaky connections. Bleed air from system.
	Yoke actuating device inoperative (variable displacement pumps)	Overhaul or replace.
	RPM of pump drive motor incorrect	Replace with correct unit.
	Worn pump, valve, motor, cylinder, or other components.	Overhaul or replace.
Excessive Flow	Flow-control set too high	Adjust.
	Yoke actuating device inoperative (variable displacement pumps)	Overhaul or replace.
	RPM of pump drive motor incorrect	Replace with correct unit.
	Improper sized pumps for replacement	Replace with correct unit.

Troubleshooting Guide

Incorrect Pressure

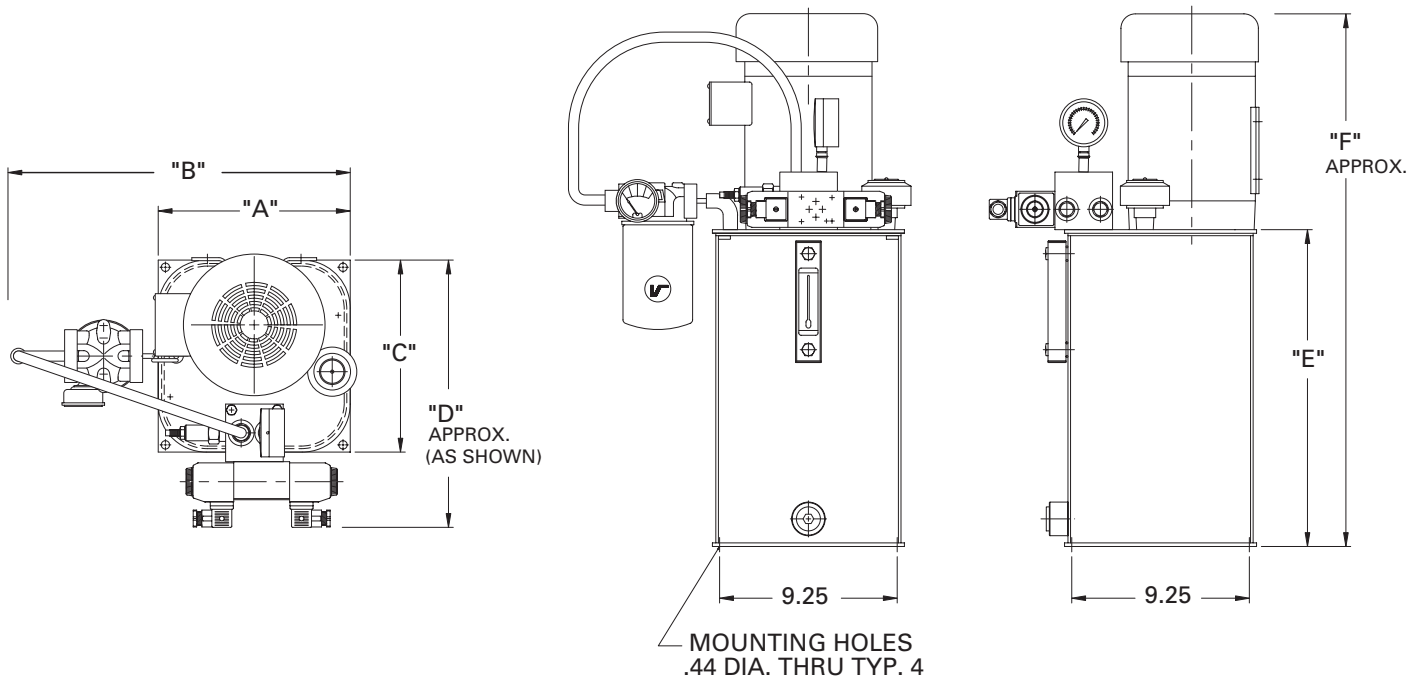
PROBLEM	CAUSE	REMEDY
No Pressure (No Flow)	Pump not receiving fluid	Replace dirty filters. Clean clogged inlet line. Clean reservoir breather vent. Fill reservoir to proper level. Overhaul or replace super-charge pump.
	Pump drive motor not operating	Overhaul or replace.
	Pump-to-drive coupling sheared	Check for damaged pump or pump drive. Replace and align coupling.
	Pump drive motor turning in wrong direction.	Reverse rotation.
	Directional control set in wrong position	Check position of manually operated controls. Check electrical circuit on solenoid operated controls. Repair or replace pilot-pressure pump.
	Entire flow passing over relief valve	Adjust
	Damaged pump	Check for damaged pump or pump drive. Replace and align coupling.
	Improperly assembled pump	Overhaul or replace.
Low Pressure	Pressure relief path exists	Refer to remedies above for No Pressure and the following remedies.
	Flow-control set too low	Adjust.
	Relief/unloading valve set too low	Adjust.
	Flow bypass thru partially open valve	Overhaul or replace--or check position of manually operated control. Check electrical circuit on solenoid operated controls. Repair or replace pilot-pressure pump.
	External leak in system	Tighten leaky connections. Bleed air from system.
	Yoke actuating device inoperative (variable displacement pump)	Overhaul or replace.
	RPM of pump-drive motor incorrect	Replace with correct unit.
	Worn pump, valve, motor, cylinder, etc.	Overhaul or replace.
	Pressure reducing set too low	Check position of manually operated control. Check electrical circuit on solenoid-operated controls. Repair or replace pilot-pressure pump
	Damaged pump, motor, or cylinder	Overhaul or replace
Erratic Pressure	Air in fluid	Tighten leaky connections. Fill reservoir to proper level and bleed air from system.
	Worn relief valve	Overhaul or replace.
	Contamination in fluid	Replace dirty filters and system fluid.
	Accumulator defective or has lost charge	Charge to correct pressure. Check gas valve for leakage. Overhaul if defective.
	Worn pump, motor, or cylinder	Overhaul or replace.
Excessive Pressure	Incorrect setting of pressure reducing, relief, or unloading valve	Adjust
	Yoke actuating device inoperative (variable displacement pumps)	Overhaul or replace.
	Pressure reducing, relief, or unloading valve worn or damaged	Overhaul or replace.

Troubleshooting Guide

Faulty Operation

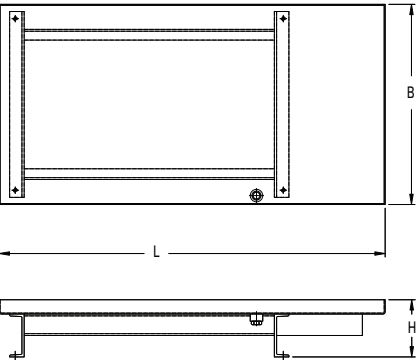
PROBLEM	CAUSE	REMEDY
No Movement	No flow or pressure	Refer to Incorrect Flow Chart.
	Limit or sequence device (mechanical, electrical, or hydraulic) inoperative or misadjusted	Overhaul or replace.
	Mechanical bind	Locate bind and repair.
	No command signal to servo amplifier	Repair command console or interconnecting wires.
	Inoperative or misadjusted servo amplifier	Adjust, repair or replace
	Inoperative servo-valve	Overhaul or replace.
Slow Movement	Fluid viscosity too high	Low flow Refer to Incorrect Flow chart Fluid may be too cold or should be changed to clean fluid of correct viscosity.
	Insufficient control pressure for valves	Refer to Incorrect Pressure chart.
	No lubrication of machine ways or linkage	Lubricate.
	Misadjusted or malfunctioning servo amplifier	Adjust, repair, or replace
	Sticking servo-valve	Clean and adjust or replace. Check condition of system fluid and filters.
	Worn or damaged cylinder or motor	Overhaul or replace.
	Erratic pressure	Refer to Incorrect Pressure chart.
	Air in fluid	Any or all of the following: - Tighten leaky inlet connection. - Fill reservoir to proper level (with rare exception all return lines should be below fluid level in reservoir). - Bleed air from system. - Replace pump shaft seal (and shaft, if worn at seal journal).
Erratic Movement	No lubrication of machine ways or linkage	Lubricate
	Erratic command signal	Repair command console or interconnecting wires.
	Misadjusted or malfunctioning servo amplifier	Adjust, repair, or replace
	Malfunctioning feedback transducer	Overhaul or replace.
	Sticking servo-valve	Clean and adjust or replace. Check condition of system fluid and filters
	Worn or damaged cylinder or motor	Overhaul or replace.
	Excessive flow	Refer to Incorrect Flow chart.
	Malfunctioning feedback transducer.	Overhaul or replace
Excessive Speed or Movement	Overriding work load	Adjust, repair, or replace counterbalance valve.
	Misadjusted or malfunctioning servo amplifier	Adjust, repair, or replace.

Installation
Drawings
PSSP System-Pak II
3 & 5 gallon



RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"
3 Gallon	700/900 or 701 .75HP	10.00	17.9	10.00	14.0	12.5	22.8
	704 .75HP	10.00	17.9	10.00	14.0	12.5	23.7
	710/910 or 711 1.5HP	10.00	17.9	10.00	14.0	12.5	23.8
	714 1.5HP	10.00	17.9	10.00	14.0	12.5	24.6
	720/920 3HP	10.00	17.9	10.00	14.0	12.5	26.0
5 Gallon	700/900 or 701 .75HP	10.00	17.9	10.00	14.0	16.5	26.8
	704 .75HP	10.00	17.9	10.00	14.0	16.5	27.7
	710/910 or 711 1.5HP	10.00	17.9	10.00	14.0	16.5	27.8
	714 1.5HP	10.00	17.9	10.00	14.0	16.5	28.6
	720/920 3HP	10.00	17.9	10.00	14.0	16.5	30.0

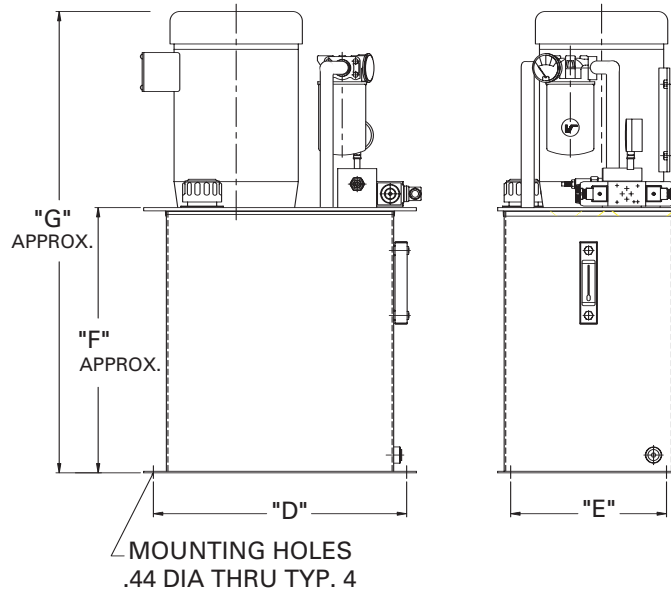
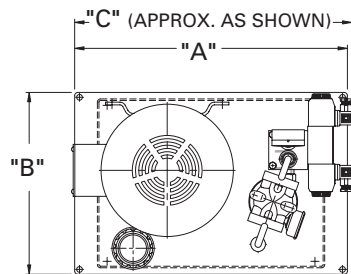
DRIP PAN



RESERVOIR SIZE	PART NO.	DIM. "L"	DIM "B"	DIM. "H"
		Inch	Inch	Inch
3 & 5 Gallon	723668-1	20.00	14.00	8.00
	723668-2	32.00	14.00	8.00

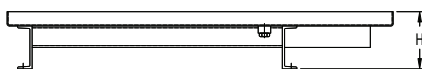
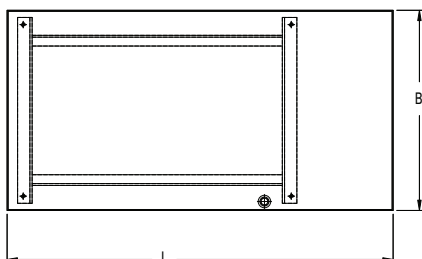
All dimensions are in inches.

Installation Drawings PSSP System-Pak II 10, 15, 20, 30 gallon

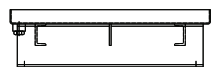


RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"
10 Gallon	710/910 1.5HP	21.00	14.00	21.4	19.50	12.00	14.0	25.3
	720/920 3HP	21.00	14.00	21.4	19.50	12.00	14.0	27.5
	730/930 5HP	21.00	14.00	21.4	19.50	12.00	14.0	29.1
	740/940 7.5HP	21.00	14.00	21.4	19.50	12.00	14.0	28.4
	750/950 10HP	21.00	14.00	21.4	19.50	12.00	14.0	29.5
15 Gallon	710/910 1.5HP	21.00	14.00	21.4	19.50	12.00	20.5	31.8
	720/920 3HP	21.00	14.00	21.4	19.50	12.00	20.5	34.0
	730/930 5HP	21.00	14.00	21.4	19.50	12.00	20.5	35.6
	740/940 7.5HP	21.00	14.00	21.4	19.50	12.00	20.5	34.9
	750/950 10HP	21.00	14.00	21.4	19.50	12.00	20.5	36.0
20 Gallon	710/910 1.5HP	21.00	14.00	21.4	19.50	12.00	27.5	38.8
	720/920 3HP	21.00	14.00	21.4	19.50	12.00	27.5	41.0
	730/930 5HP	21.00	14.00	21.4	19.50	12.00	27.5	42.6
	740/940 7.5HP	21.00	14.00	21.4	19.50	12.00	27.5	41.9
	750/950 10HP	21.00	14.00	21.4	19.50	12.00	27.5	43.0
30 Gallon	720/920 3HP	27.00	18.00	27.2	25.00	17.00	20.5	34.0
	730/930 5HP	27.00	18.00	27.2	25.00	17.00	20.5	35.6
	740/940 7.5HP	27.00	18.00	27.2	25.00	17.00	20.5	34.9
	750/950 10HP	27.00	18.00	27.2	25.00	17.00	20.5	36.0

DRIP PAN

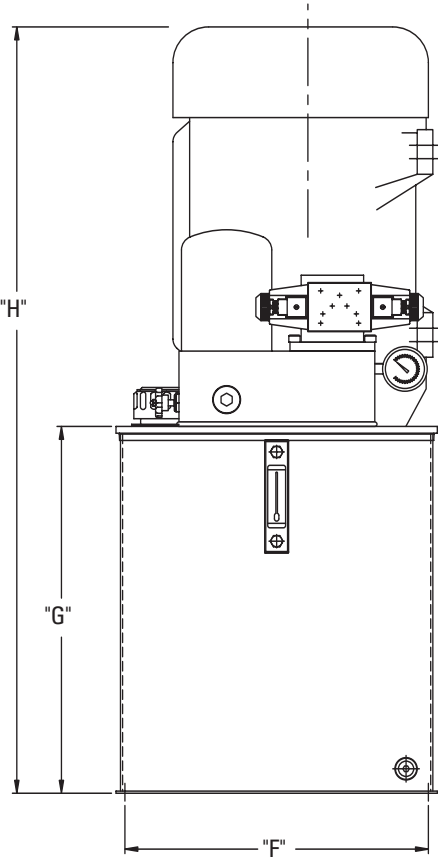
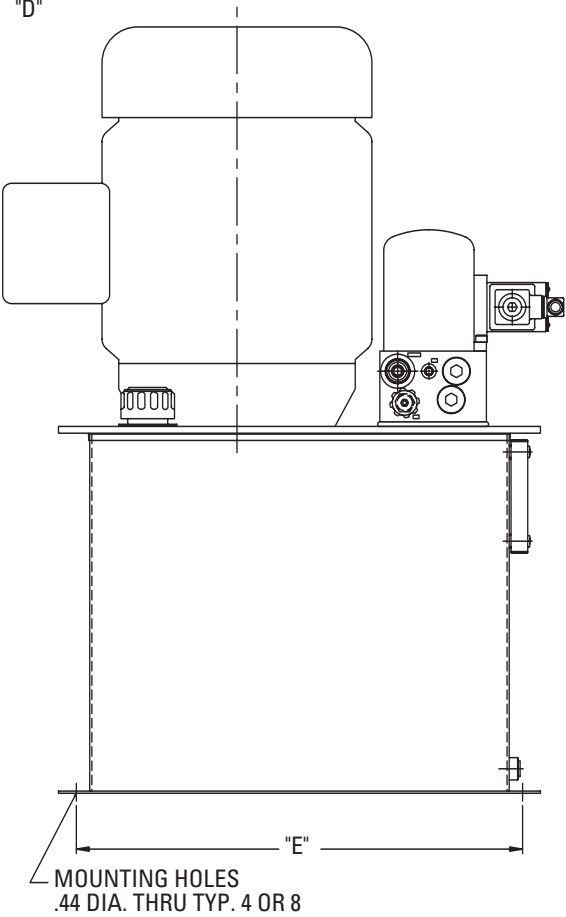
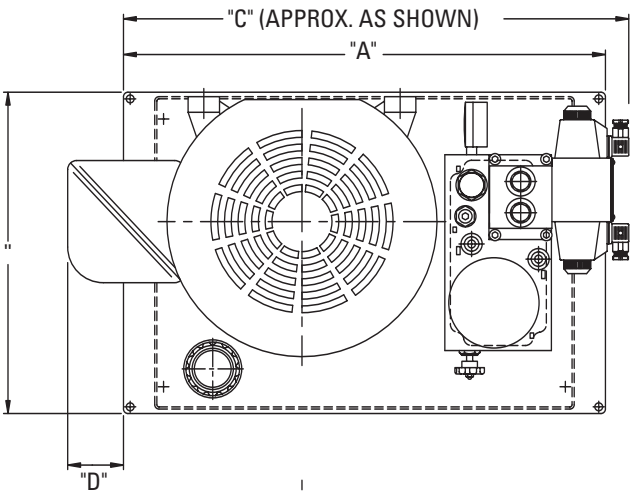


RESERVOIR SIZE	PART NO.	DIM. "L"	DIM. "B"	DIM. "H"
		Inch	Inch	Inch
10,15 & 20 Gallon	723669-1	24.00	18.00	8.00
	723669-2	36.00	18.00	8.00
30 Gallon	723666-1	30.00	22.00	8.00
	723666-2	42.00	22.00	8.00



All dimensions are in inches.

Installation
Drawings
PSPP System-Pak Plus

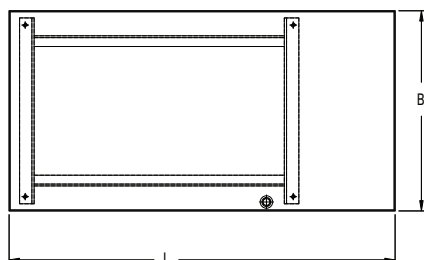


All dimensions are in inches.

Installation Drawings PSPP System-Pak Plus

RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"	DIM. "H"
20 Gallon	730 thru 733 5HP	27.00	18.00	28.4	N/A.	25.00	17.00	14.1	29.4
	740 thru 743 7.5HP	27.00	18.00	28.4	N/A.	25.00	17.00	14.1	28.5
	750 thru 753 10HP	27.00	18.00	28.4	N/A.	25.00	17.00	14.1	29.6
	760 thru 763 15HP	27.00	18.00	28.4	N/A.	25.00	17.00	14.1	30.3
	770 thru 773 20HP	27.00	18.00	28.4	N/A.	25.00	17.00	14.1	33.5
	780 thru 783 25HP	27.00	18.00	28.4	3.2	25.00	17.00	14.1	36.5
	790 thru 793 30HP	27.00	18.00	28.4	3.2	25.00	17.00	14.1	36.5
30 Gallon	730 thru 733 5HP	27.00	18.00	28.4	N/A.	25.00	17.00	20.6	35.9
	740 thru 743 7.5HP	27.00	18.00	28.4	N/A.	25.00	17.00	20.6	35.0
	750 thru 753 10HP	27.00	18.00	28.4	N/A.	25.00	17.00	20.6	36.1
	760 thru 763 15HP	27.00	18.00	28.4	N/A.	25.00	17.00	20.6	36.8
	770 thru 773 20HP	27.00	18.00	28.4	N/A.	25.00	17.00	20.6	40.0
	780 thru 783 25HP	27.00	18.00	28.4	3.2	25.00	17.00	20.6	43.0
	790 thru 793 30HP	27.00	18.00	28.4	3.2	25.00	17.00	20.6	43.0
40 Gallon	730 thru 733 5HP	27.00	18.00	28.4	N/A.	25.00	17.00	27.6	42.9
	740 thru 743 7.5HP	27.00	18.00	28.4	N/A.	25.00	17.00	27.6	42.0
	750 thru 753 10HP	27.00	18.00	28.4	N/A.	25.00	17.00	27.6	43.1
	760 thru 763 15HP	27.00	18.00	28.4	N/A.	25.00	17.00	27.6	43.8
	770 thru 773 20HP	27.00	18.00	28.4	N/A.	25.00	17.00	27.6	47.0
	780 thru 783 25HP	27.00	18.00	28.4	3.2	25.00	17.00	27.6	50.0
	790 thru 793 30HP	27.00	18.00	28.4	3.2	25.00	17.00	27.6	50.0
60 Gallon	730 thru 733 5HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	35.9
	740 thru 743 7.5HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	35.0
	750 thru 753 10HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	36.1
	760 thru 763 15HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	43.8
	770 thru 773 20HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	40.0
	780 thru 783 25HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	43.0
	790 thru 793 30HP	38.00	24.00	N/A.	N/A.	37.38	17.10 & 23.00	20.6	43.0

DRIP PAN

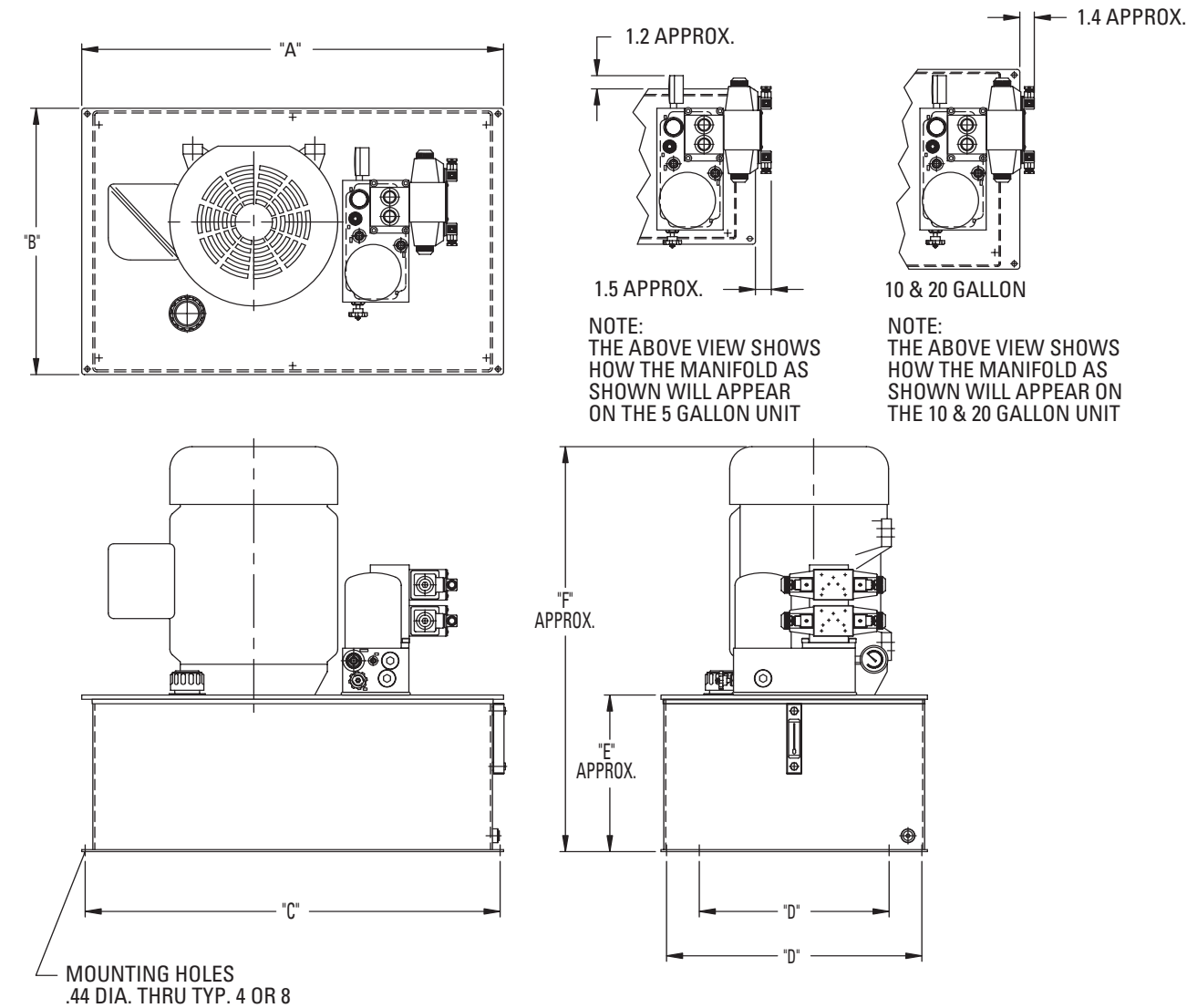


RESERVOIR SIZE	PART NO.	DIM. "L"	DIM. "B"	DIM. "H"
		Inch	Inch	Inch
20,30 & 40 Gallon	723555-1	30.00	28.00	8.00
	723555-2	40.00	36.00	8.00
60 Gallon	723667-1	42.00	28.00	8.00
	723667-2	54.00	28.00	8.00

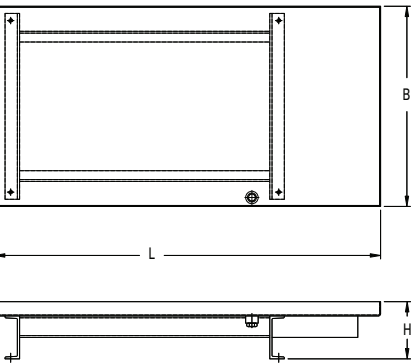
All dimensions are in inches.

Installation Drawings

PSLP Profile-Pak



DRIP PAN



RESERVOIR SIZE	PART NO.	DIM. "L"	DIM "B"	DIM. "H"
		Inch	Inch	Inch
5 Gallon	723669-1	24.00	18.00	8.00
	723669-2	36.00	18.00	8.00
10 & 20 Gallon	723666-1	30.00	22.00	8.00
	723666-2	42.00	22.00	8.00
30, 40 & 60 Gallon	723667-1	42.00	28.00	8.00
	723667-2	54.00	28.00	8.00

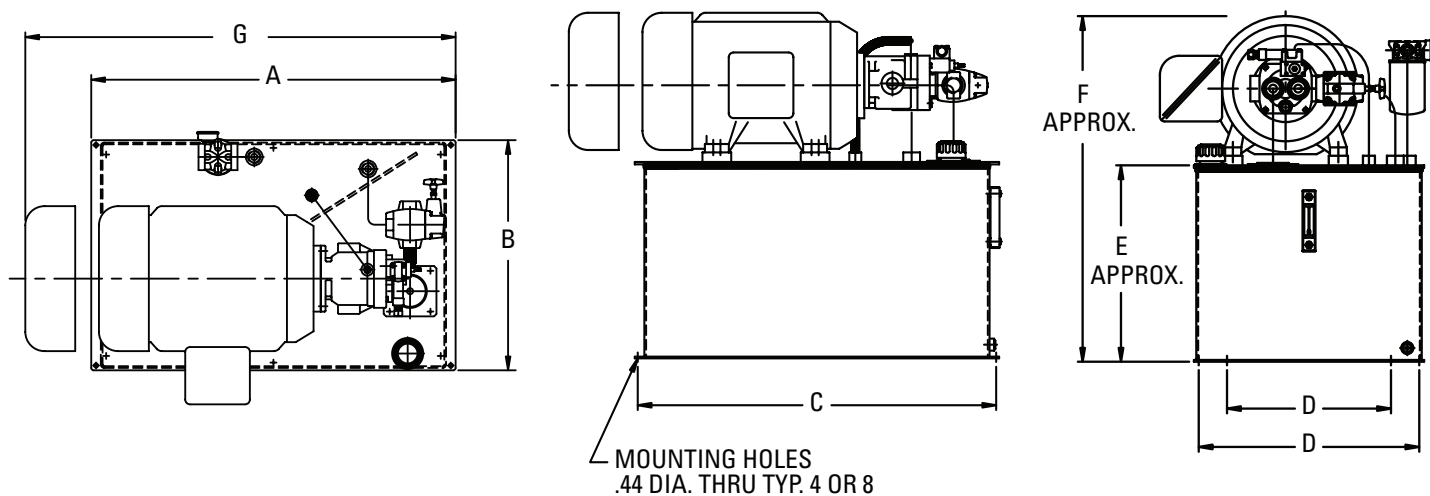
All dimensions are in inches.

Installation Drawings PSLP Profile-Pak

RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"
5 Gallon	700 or 701 .75HP	21.00	14.00	19.50	12.00	8.7	19.0
	704 .75HP	21.00	14.00	19.50	12.00	8.7	19.9
	710 or 711 1.5HP	21.00	14.00	19.50	12.00	8.7	20.0
	714 1.5HP	21.00	14.00	19.50	12.00	8.7	20.8
	720 or 721 3HP	21.00	14.00	19.50	12.00	8.7	22.2
	724 3HP	21.00	14.00	19.50	12.00	8.7	23.8
	730 thru 733 5HP	21.00	14.00	19.50	12.00	8.7	23.8
	740 thru 743 7.5HP	21.00	14.00	19.50	12.00	8.7	23.1
	750 thru 753 10HP	21.00	14.00	19.50	12.00	8.7	24.2
10 Gallon	700 or 701 .75HP	27.00	18.00	25.00	17.00	8.8	19.1
	704 .75HP	27.00	18.00	25.00	17.00	8.8	20.0
	710 or 711 1.5HP	27.00	18.00	25.00	17.00	8.8	20.1
	714 1.5HP	27.00	18.00	25.00	17.00	8.8	20.9
	720 or 721 3HP	27.00	18.00	25.00	17.00	8.8	22.3
	724 3HP	27.00	18.00	25.00	17.00	8.8	23.9
	730 thru 733 5HP	27.00	18.00	25.00	17.00	8.8	23.9
	740 thru 743 7.5HP	27.00	18.00	25.00	17.00	8.8	23.2
	750 thru 753 10HP	27.00	18.00	25.00	17.00	8.8	24.3
20 Gallon	720 or 721 3HP	27.00	18.00	25.00	17.00	13.8	27.3
	724 3HP	27.00	18.00	25.00	17.00	13.8	28.9
	730 thru 733 5HP	27.00	18.00	25.00	17.00	13.8	28.9
	740 thru 743 7.5HP	27.00	18.00	25.00	17.00	13.8	28.2
	750 thru 753 10HP	27.00	18.00	25.00	17.00	13.8	29.3
	760 thru 763 15HP	27.00	18.00	25.00	17.00	13.8	30.0
	770 thru 773 20HP	27.00	18.00	25.00	17.00	13.8	33.2
	780 thru 783 25HP	27.00	18.00	25.00	17.00	13.8	36.2
30 Gallon	730 thru 733 5HP	38.00	24.00	37.38	17.10 & 23.00	11.7	26.8
	740 thru 743 7.5HP	38.00	24.00	37.38	17.10 & 23.00	11.7	26.1
	750 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	11.7	27.2
	760 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	11.7	27.9
	770 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	11.7	31.1
	780 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	11.7	34.1
	790 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	11.7	34.1
40 Gallon	750 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	14.2	29.7
	760 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	14.2	30.4
	770 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	14.2	33.6
	780 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	14.2	36.6
	790 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	14.2	36.6
60 Gallon	750 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	20.7	36.2
	760 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	20.7	36.9
	770 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	20.7	40.1
	780 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	20.7	43.1
	790 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	20.7	43.1

All dimensions are in inches.

Installation Drawings PSSC System-Center (Non-JIC)



RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"
10 Gallon	700/900 or 701 .75HP	27.00	18.00	25.00	17.00	8.9	16.8	N/A
	704 .75HP	27.00	18.00	25.00	17.00	8.9	18.7	N/A
	710/910 or 711 1.5HP	27.00	18.00	25.00	17.00	8.9	16.8	N/A
	714 1.5HP	27.00	18.00	25.00	17.00	8.9	18.7	N/A
	720/920 or 721 3HP	27.00	18.00	25.00	17.00	8.9	16.8	N/A
	724 3HP	27.00	18.00	25.00	17.00	8.9	20.0	N/A
	730/930 thru 733 5HP	27.00	18.00	25.00	17.00	8.9	18.4	N/A
	740/940 thru 743 7.5HP	27.00	18.00	25.00	17.00	8.9	19.9	N/A
	750/950 thru 753 10HP	27.00	18.00	25.00	17.00	8.9	19.9	N/A
20 Gallon	700/900 or 701 .75HP	27.00	18.00	25.00	17.00	13.9	21.8	N/A
	704 .75HP	27.00	18.00	25.00	17.00	13.9	23.7	N/A
	710/910 or 711 1.5HP	27.00	18.00	25.00	17.00	13.9	21.8	N/A
	714 1.5HP	27.00	18.00	25.00	17.00	13.9	23.7	N/A
	720/920 or 721 3HP	27.00	18.00	25.00	17.00	13.9	21.8	N/A
	724 3HP	27.00	18.00	25.00	17.00	13.9	25.0	N/A
	730/930 thru 733 5HP	27.00	18.00	25.00	17.00	13.9	23.4	N/A
	740/940 thru 743 7.5HP	27.00	18.00	25.00	17.00	13.9	24.9	N/A
	750/950 thru 753 10HP	27.00	18.00	25.00	17.00	13.9	24.9	N/A
30 Gallon	720/920 or 721 3HP	38.00	24.00	37.38	17.10 & 23.00	11.5	19.4	N/A
	724 3HP	38.00	24.00	37.38	17.10 & 23.00	11.5	22.6	N/A
	730/930 thru 733 5HP	38.00	24.00	37.38	17.10 & 23.00	11.5	21.0	N/A
	740/940 thru 743 7.5HP	38.00	24.00	37.38	17.10 & 23.00	11.5	22.5	N/A
	750/950 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	11.5	22.5	N/A
	760/960 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	11.5	22.5	N/A
	770/970 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	11.5	25.0	N/A
	780/980 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	11.5	26.8	N/A
	790/990 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	11.5	26.8	N/A
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	11.5	28.1	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	11.5	29.1	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	11.5	29.1	46
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	11.5	28.1	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	11.5	29.1	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	11.5	29.1	46

All dimensions are in inches.

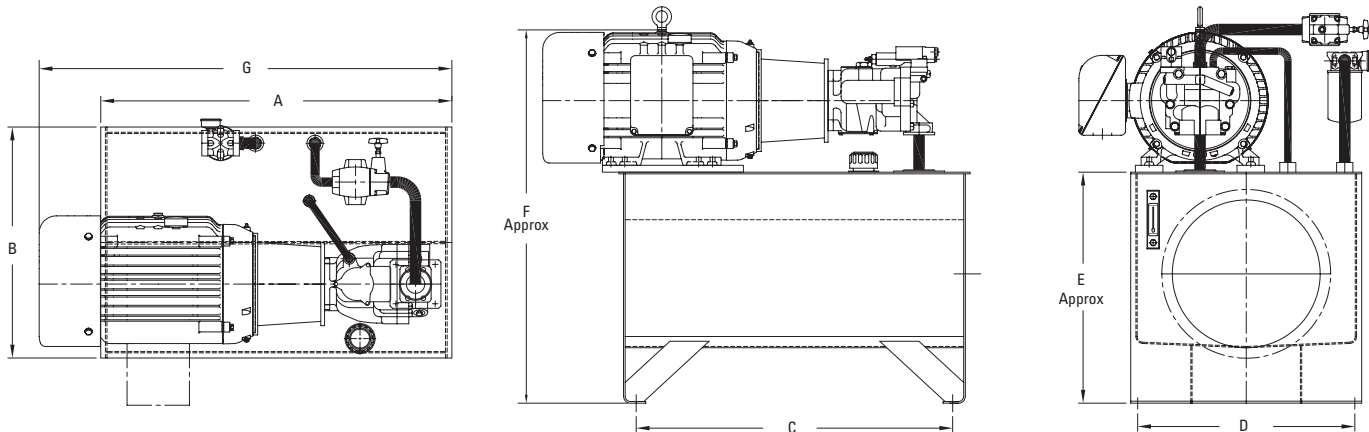
Installation Drawings PSSC System-Center (Non-JIC)

RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"
40 Gallon	730/930 thru 733 5HP	38.00	24.00	37.38	17.10 & 23.00	14.0	23.5	N/A
	740/940 thru 743 7.5HP	38.00	24.00	37.38	17.10 & 23.00	14.0	25.0	N/A
	750/950 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	14.0	25.0	N/A
	760/960 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	14.0	25.0	N/A
	770/970 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	14.0	27.5	N/A
	780/980 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	14.0	29.3	N/A
	790/990 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	14.0	29.3	N/A
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	14.0	30.6	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	14.0	31.6	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	14.0	31.6	46
60 Gallon	740/940 thru 743 7.5HP	38.00	24.00	37.38	17.10 & 23.00	20.5	31.5	N/A
	750/950 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	20.5	31.5	N/A
	760/960 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	20.5	31.5	N/A
	770/970 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	20.5	34.0	N/A
	780/980 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	20.5	35.8	N/A
	790/990 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	20.5	35.8	N/A
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	20.5	37.1	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	20.5	38.1	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	20.5	38.1	46
80 Gallon	750/950 thru 753 10HP	38.00	24.00	37.38	17.10 & 23.00	27.5	38.5	N/A
	760/960 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	27.5	38.5	N/A
	770/970 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	27.5	41.0	N/A
	780/980 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	27.5	42.8	N/A
	790/990 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	27.5	42.8	N/A
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	27.5	44.1	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	27.5	45.1	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	27.5	45.1	46
100 Gallon	760/960 thru 763 15HP	38.00	24.00	37.38	17.10 & 23.00	31.5	42.5	N/A
	770/970 thru 773 20HP	38.00	24.00	37.38	17.10 & 23.00	31.5	45.0	N/A
	780/980 thru 783 25HP	38.00	24.00	37.38	17.10 & 23.00	31.5	46.8	N/A
	790/990 thru 793 30HP	38.00	24.00	37.38	17.10 & 23.00	31.5	46.8	N/A
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	31.5	48.1	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	31.5	49.1	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	31.5	49.1	46
120 Gallon	770 thru 773 20 HP	38.00	24.00	37.38	17.10 & 23.00	35.5	49.0	N/A
	780 thru 783 25 HP	38.00	24.00	37.38	17.10 & 23.00	35.5	50.8	N/A
	790 thru 793 30 HP	38.00	24.00	37.38	17.10 & 23.00	35.5	50.8	N/A
	325 or 329 30 HP	38.00	24.00	37.38	17.10 & 23.00	35.5	52.1	45
	333 or 337 40 HP	38.00	24.00	37.38	17.10 & 23.00	35.5	53.1	46
	341 or 345 50 HP	38.00	24.00	37.38	17.10 & 23.00	35.5	53.1	46

Non-JIC Drip Pan Information is shown on page 25.

All dimensions are in inches.

Installation Drawings PSSC System-Center JIC Tank



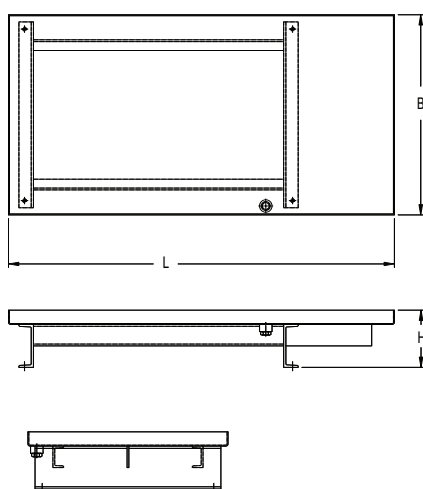
RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"
10 Gallon	700/900 or 701 .75 HP	24.00	16.00	21.25	14.50	18.00	25.9	N/A
	704 0.75HP	24.00	16.00	21.25	14.50	18.00	27.8	N/A
	710/910 or 711 1.5HP	24.00	16.00	21.25	14.50	18.00	25.9	N/A
	714 1.5HP	24.00	16.00	21.25	14.50	18.00	27.8	N/A
	720/920 or 721 3HP	24.00	16.00	21.25	14.50	18.00	25.9	N/A
	724 3HP	24.00	16.00	21.25	14.50	18.00	29.1	N/A
	730/930 thru 733 5HP	24.00	16.00	21.25	14.50	18.00	27.5	N/A
	740/940 thru 743 7.5HP	24.00	16.00	21.25	14.50	18.00	29.0	N/A
	750/950 thru 753 10HP	24.00	16.00	21.25	14.50	18.00	29.0	N/A
20 Gallon	700/900 or 701 .75 HP	32.00	21.00	29.25	19.50	18.00	25.9	N/A
	704 0.75HP	32.00	21.00	29.25	19.50	18.00	27.8	N/A
	710/910 or 711 1.5HP	32.00	21.00	29.25	19.50	18.00	25.9	N/A
	714 1.5HP	32.00	21.00	29.25	19.50	18.00	27.8	N/A
	720/920 or 721 3HP	32.00	21.00	29.25	19.50	18.00	25.9	N/A
	724 3HP	32.00	21.00	29.25	19.50	18.00	29.1	N/A
	730/930 thru 733 5HP	32.00	21.00	29.25	19.50	18.00	27.5	N/A
	740/940 thru 743 7.5HP	32.00	21.00	29.25	19.50	18.00	29.0	N/A
	750/950 thru 753 10HP	32.00	21.00	29.25	19.50	18.00	29.0	N/A
30 Gallon	720/920 or 721 3HP	36.00	24.00	33.25	22.50	19.00	26.9	N/A
	724 3HP	36.00	24.00	33.25	22.50	19.00	30.1	N/A
	730/930 thru 733 5HP	36.00	24.00	33.25	22.50	19.00	28.5	N/A
	740/940 thru 743 7.5HP	36.00	24.00	33.25	22.50	19.00	30.0	N/A
	750/950 thru 753 10HP	36.00	24.00	33.25	22.50	19.00	30.0	N/A
	760/960 thru 763 15HP	36.00	24.00	33.25	22.50	19.00	30.0	N/A
	770/970 thru 773 20 HP	36.00	24.00	33.25	22.50	19.00	32.5	N/A
	780/980 thru 783 25 HP	36.00	24.00	33.25	22.50	19.00	34.3	N/A
	790/990 thru 793 30 HP	36.00	24.00	33.25	22.50	19.00	34.3	N/A
60 Gallon	740/940 thru 743 7.5HP	38.00	25.00	35.25	23.50	25.00	36.0	N/A
	750/950 thru 753 10HP	38.00	25.00	35.25	23.50	25.00	36.0	N/A
	760/960 thru 763 15HP	38.00	25.00	35.25	23.50	25.00	36.0	N/A
	770/970 thru 773 20 HP	38.00	25.00	35.25	23.50	25.00	38.5	N/A
	780/980 thru 783 25 HP	38.00	25.00	35.25	23.50	25.00	25.0	N/A
	790/990 thru 793 30 HP	38.00	25.00	35.25	23.50	25.00	25.0	N/A
	325 or 329 30 HP	38.00	25.00	35.25	23.50	25.00	40.5	44
	333 or 337 40 HP	38.00	25.00	35.25	23.50	25.00	42.5	46
	341 or 345 50 HP	38.00	25.00	35.25	23.50	25.00	42.5	46

All dimensions are in inches.

Installation Drawings PSSC System-Center JIC Tank

RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"	DIM. "F"	DIM. "G"
100 Gallon	760/960 thru 763 15HP	47.00	30.00	44.25	28.50	29.00	40.0	N/A
	770/970 thru 773 20 HP	47.00	30.00	44.25	28.50	29.00	40.0	N/A
	780/980 thru 783 25 HP	47.00	30.00	44.25	28.50	29.00	44.3	N/A
	790/990 thru 793 30 HP	47.00	30.00	44.25	28.50	29.00	44.3	N/A
	325 or 329 30 HP	47.00	30.00	44.25	28.50	29.00	44.5	N/A
	333 or 337 40 HP	47.00	30.00	44.25	28.50	29.00	46.5	N/A
	341 or 345 50 HP	47.00	30.00	44.25	28.50	29.00	46.5	N/A
150 Gallon	760/960 thru 763 15HP	60.00	30.00	57.25	28.50	29.00	40.0	N/A
	770/970 thru 773 20 HP	60.00	30.00	57.25	28.50	29.00	40.0	N/A
	780/980 thru 783 25 HP	60.00	30.00	57.25	28.50	29.00	44.3	N/A
	790/990 thru 793 30 HP	60.00	30.00	57.25	28.50	29.00	44.3	N/A
	325 or 329 30 HP	60.00	30.00	57.25	28.50	29.00	44.5	N/A
	333 or 337 40 HP	60.00	30.00	57.25	28.50	29.00	46.5	N/A
	341 or 345 50 HP	60.00	30.00	57.25	28.50	29.00	46.5	N/A
	349 60 HP	60.00	30.00	57.25	28.50	29.00	48.6	N/A
	357 75 HP	60.00	30.00	57.25	28.50	29.00	48.6	N/A
200 Gallon	780/980 thru 783 25 HP	72.00	36.00	69.25	34.50	29.00	44.3	N/A
	790/990 thru 793 30 HP	72.00	36.00	69.25	34.50	29.00	44.3	N/A
	325 or 329 30 HP	72.00	36.00	69.25	34.50	29.00	44.5	N/A
	333 or 337 40 HP	72.00	36.00	69.25	34.50	29.00	46.5	N/A
	341 or 345 50 HP	72.00	36.00	69.25	34.50	29.00	46.5	N/A
	349 60 HP	72.00	36.00	69.25	34.50	29.00	48.6	N/A
	357 75 HP	72.00	36.00	69.25	34.50	29.00	48.6	N/A
	365 100 HP	72.00	36.00	69.25	34.50	29.00	49.6	N/A

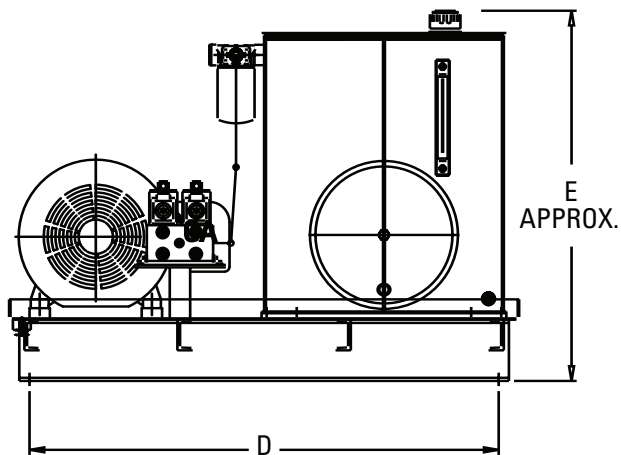
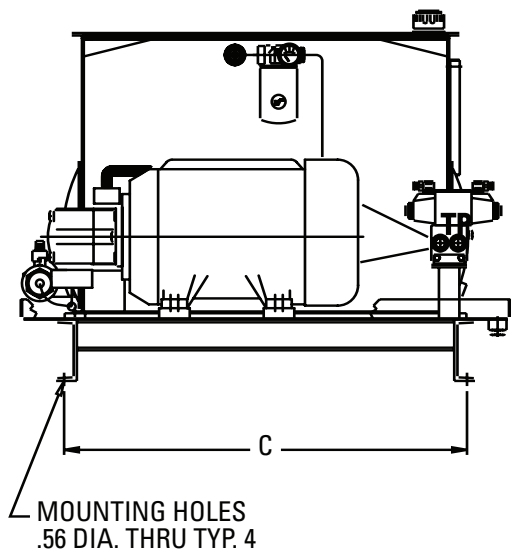
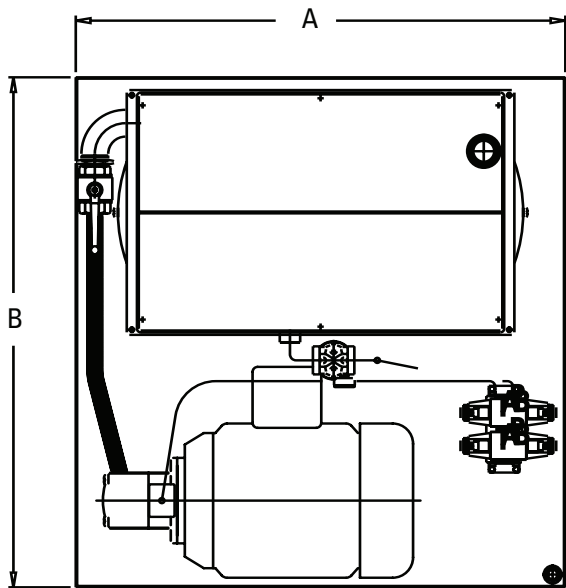
DRIP PAN



RESERVOIR SIZE	PART NO.	DIM. "L"	DIM "B"	DIM. "H"
		Inch	Inch	Inch
NON-JIC DRIP PAN				
10 & 20 Gallon	723666-1	30.00	22.00	8.00
	723666-2	42.00	22.00	8.00
30,40,60,80,100 & 120 Gallon	723667-1	42.00	28.00	8.00
	723667-2	54.00	28.00	8.00
JIC DRIP PAN				
10 Gallon JIC	723666-1	30.00	22.00	8.00
	723666-2	42.00	22.00	8.00
20 Gallon JIC	723667-1	42.00	28.00	8.00
	723667-2	54.00	28.00	8.00
30 Gallon JIC	723667-1	42.00	28.00	8.00
	723667-2	54.00	28.00	8.00
60 Gallon JIC	TBD	44.00	31.00	8.00
	TBD	56.00	31.00	8.00
100 Gallon JIC	TBD	53.00	36.00	8.00
	TBD	65.00	36.00	8.00
150 Gallon JIC	TBD	66.00	36.00	8.00
	TBD	78.00	36.00	8.00
200 Gallon JIC	TBD	78.00	42.00	8.00
	TBD	90.00	42.00	8.00

All dimensions are in inches.

Installation
Drawings
PSSL System-L Series

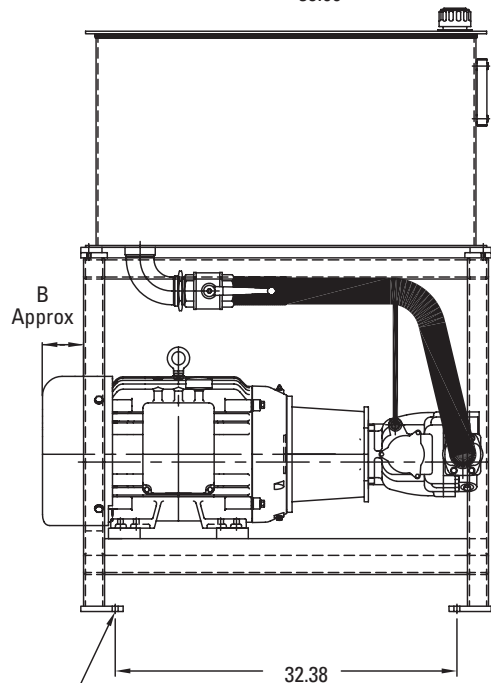
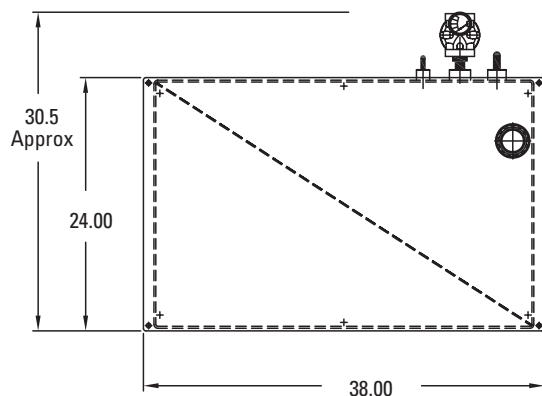


Note:
30/40/50HP C-Face motors will have manifold mounted on tank cover plate (affecting "E" dimension).

RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"	DIM. "C"	DIM. "D"	DIM. "E"
10 Gallon	Any size motor	28.00	30.00	19.50	26.00	29.3
20 Gallon	Any size motor	28.00	30.00	19.50	26.00	36.3
30 Gallon	Any size motor	36.00	40.00	27.50	36.00	36.3
40 Gallon	Any size motor	36.00	40.00	27.50	36.00	39.3
60 Gallon	Any size motor	48.00	50.00	39.50	46.00	29.5
80 Gallon	Any size motor	48.00	50.00	39.50	46.00	36.5
100 Gallon	Any size motor	48.00	50.00	39.50	46.00	40.5
120 Gallon	Any size motor	48.00	50.00	39.50	46.00	44.5

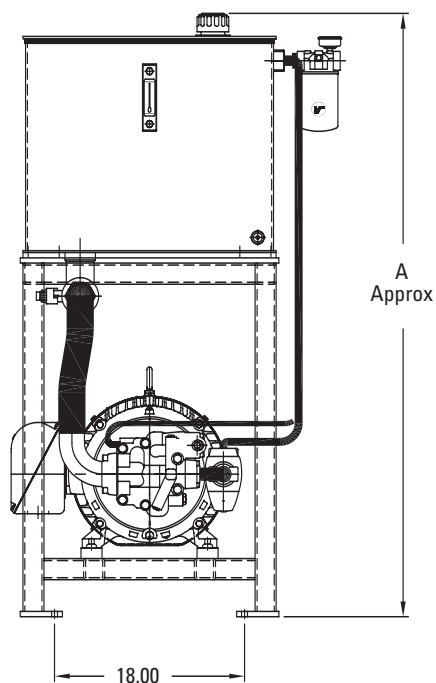
All dimensions are in inches.

Installation Drawings PSSO System Overhead



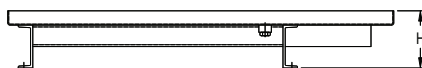
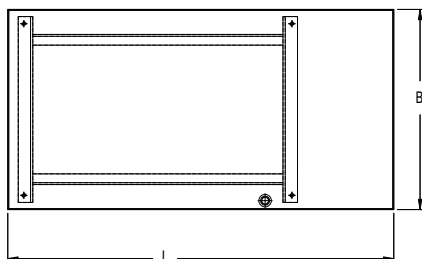
Mounting Holes
.56 Dia. Thru Typ. 4

Dimension B for C-Face Electric
30HP (5.5")/40HP(8.9")/50HP(8.9") Motors



RESERVOIR SIZE	ELECTRIC MOTOR	DIM. "A"	DIM. "B"
30 Gallon	325 or 329 30 HP	50.7	5.50
	333 or 337 40HP	50.7	8.90
	341 or 345 50HP	50.7	8.90
40 Gallon	325 or 329 30 HP	57.2	5.50
	333 or 337 40HP	57.2	8.90
	341 or 345 50HP	57.2	8.90
60 Gallon	325 or 329 30 HP	57.2	5.50
	333 or 337 40HP	57.2	8.90
	341 or 345 50HP	57.2	8.90
80 Gallon	325 or 329 30 HP	64.2	5.50
	333 or 337 40HP	64.2	8.90
	341 or 345 50HP	64.2	8.90
100 Gallon	325 or 329 30 HP	68.2	5.50
	333 or 337 40HP	68.2	8.90
	341 or 345 50HP	68.2	8.90
120 Gallon	Any size motor	72.2	50.00
	Any size motor	72.2	50.00
	Any size motor	72.2	50.00

DRIP PAN



RESERVOIR SIZE	PART NO.	DIM. "L"	DIM "B"	DIM. "H"
		Inch	Inch	Inch
30,40,60,80,100 & 120 Gallon	723667-1	42.00	28.00	8.00
	723667-2	54.00	28.00	8.00



All dimensions are in inches.

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